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ABSTRACT

In the preface, the editor states that this publication was generated to identify, synthesize, publish, and disseminate specific research finding. It contains a collection of six essays, entitled Recreation Research: An Overview; What Research Tells the Recreation Practitioner About Administrative Behavior; Recreation and Behavior Modification; Recreation as a Social Institution; Therapeutic Recreation Research and the Recreation Practitioner; and The Future of Leisure Studies. The attached appendix provides a guide to information resources programming for the handicapped and includes addresses of clearinghouses and other information agencies dealing with physical education, recreation, and related disciplines. (JS)

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What Recreation Research Says to the Recreation Practitioner

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Donald A. Pelegrino
Editor

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Preface

What Recreation Research Says To the Recreation Practitioner is the first publication of the American Association for Leisure and Recreation of the American Alliance for Health, Physical Education, and Recreation. This publication emanated from a charge of the Recreation Division's Commission on Research and Evaluation "to identify, synthesize, publish and disseminate the specific research findings." Commission members are:

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Research and Evaluation

RECREATION RESEARCH: AN OVERVIEW

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Research provides new information and facts which lead to constructive solutions or a better understanding of current problems in a given field.

Recreation has long sought to improve the quality of life by attempting to increase the pleasure that man derives from his free time. Thus, research is an essential tool for furthering recreation services, whether these services involve physical and mental health, administrative behavior, leadership evaluation, facility design, outdoor recreation and/or planning general services within a leisure delivery system. Research is a process and a tool which is necessary and cannot be replaced.

Although research has been recognized as a viable and worthy asset to any field of endeavor:

> only since 1960 have professional recreation practitioners and educators become vitally interested in research as an undergirding and vital aspect of recreation and park services. Only recently has there been a real interest in studying the effect of recreation upon individuals, the impact of leisure upon society, and the contribution of organized recreation to meeting community and individual needs — and in utilizing research to develop more effective operational procedures and in participating in interdisciplinary research endeavors. This concern by professional recreation personnel is a mark of a maturing profession, a profession which is accepting the challenge of accountability by basing its actions upon sound research.[1]

To be an effective field oriented to meeting the social, physical and spiritual needs of the general public, recreation must have a valid approach to those needs. Research offers the main tool for providing guidelines to serve the needs of any given community. Moncrief recently stated that research can help insure against acceptance of invalid assumptions in establishing recreation policy and providing recreation opportunities to the public if the research is well conceived and executed.[2]

Recreation without adequate research cannot hope to meet society's present and future needs. According to Toffler, knowledge will be assimilated at such a rapid rate in the future that agencies will be hard pressed to keep pace.[3] With this type of thinking, it is obvious that research and constant reevaluation are the only hopes if recreation agencies are to survive in a changing world.

The United States has great availability of time for recreation and leisure activities. Recreation, in whatever form it pleases people, contributes significantly to their happiness and well-being. Therefore, it is important to consider some of the significant factors associated with recreation and leisure in order to have

a scientific appreciation of the process of recreation and leisure. Some of these factors are:

1. Socioeconomic forces that influence man's leisure and recreation
2. Organizations, agencies and programs concerned with people's leisure expenditures
3. The time man has and how he uses it
4. Economic impact of recreation pursuits
5. Supply and demand of recreation resources
6. Future expectations in contrast to those of the present and past.

All of these factors are or should be of major concern to the recreation practitioner.

The Research Council of the American Association (now Alliance) for Health, Physical Education, and Recreation listed the following suggestions for research studies in recreation:[4]

1. The development of an instrument which may be used to predict the success of the prospective recreation leader
2. A study of the age-levels of readiness of children for the development of basic recreation skills
3. A study of those leadership techniques which have proved most successful in the conduct of various recreation activities
4. A study to determine the factors which cause children and adults to drop out of recreation activities
5. Origin of established recreational interest
6. Collecting hobbies of the residents of a small community
7. Longitudinal study of effects of recreation
8. Analysis of therapeutic value of recreation
9. Study of the motivational factors in sports
10. Longitudinal studies of changes in recreational interests and patterns.

Since AAHPER's listing in 1954, many of these research studies have been completed. But the list for suggestions for further research studies in recreation and leisure increases as the profession grows.

Undoubtedly research in recreation and leisure is in its infancy. There is not enough information available on recreation and how it can be used to benefit mankind. Leisure habits and interests of people must be measured and determined. Techniques and methods for research in recreation must be developed. Additional information is needed about programming and about the skillful practitioners in the field. In these, one finds a useful alliance between research in recreation and leisure and the practitioner in his practical experience.

Recreation, both through research and in its application, is a new social force today.

This author agrees with Sapora who said, "There is a need for the recreation practitioner and the researcher to join hands more closely. Each can learn from

the other. No profession can advance when there is too great a gap between theory and practice."[5]

NOTES

[1]American Association for Health, Physical Education, and Recreation and National Recreation Association, *Research in Recreation* (Washington, DC: the Associations, 1966), from the Foreword.

[2]Lewis W. Moncrief, Questions about recreation research, *Journal of Health, Physical Education, Recreation* 42 (Jan. 1971), 93.

[3]Alvin Toffler, *Future Shock* (New York: Bantam Books, 1970), chap. 18.

[4]American Association for Health, Physical Education, and Recreation, Research underway and research needed in health, physical education and recreation (Washington, DC: the Association, 1954), pp. 56-57, mimeographed.

[5]A. V. Sapora, Recreation surveys, studies and research, in Proceedings of the Recreation Planning Institute, Great Lakes District Recreation Conference (Cincinnati: National Recreation Association, 1957), p. 4.

WHAT RESEARCH TELLS THE RECREATION PRACTITIONER ABOUT ADMINISTRATIVE BEHAVIOR

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INFORMAL ORGANIZATION

A real interest in administrative behavior was shown many centuries ago by Machiavelli, and only now has his great insight and the practicality of many of his concepts been appreciated. However, the Hawthorne studies at the Western Electric Company during the 1920s perhaps signalled the beginning of the present tremendous interest and research in the "people" or behavioral aspects of organization life.[1]

An offshoot of the Hawthorne studies was the recognition of certain unintended or informal conditions within organizations. Further studies in a variety of settings confirmed the existence, activities and functions of a shadowy structure that came to be known as the "informal organization."

Essentially, the informal organization was conceived as the actual pattern of relationships and behaviors in an organization, as contrasted with the formally patterned ones. Countless investigators have examined the many ramifications and implications of the informal organization and have published their observations and conclusions or hypotheses concerning its functions, values and undesirable aspects. The concept itself has undergone many refinements in light of newer behavioral revelations. In fact, a large part of behavioral research on organizations and administration is concerned with studies dealing with one aspect or another of what was originally thought of as simply the informal organization.

The general thrust of research on informal organizations has been to reorder thinking concerning the assumption that organization man acts in the highly rational, predictable manner suggested in job descriptions, rules and orders of hierarchical superiors, and that he orders his relationships as depicted on traditional organization charts. Research has shown conclusively how far actual behavior and working relationships deviate from classic assumptions. The original notion that the informal organization was largely undesirable and worked in opposition to management also has been dispelled. Various facets of the informal organization have been found to perform useful, even indispensable, functions.[2]

The work of Dalton in four industrial firms has been very revealing and influential, painting a picture of the unstable and transitory nature of many informal relationships. A brief statement by Dalton also is indicative of the many functional and dysfunctional aspects of informal organization:

> . . . informal action may work for many ends: to change and preserve the organization, to protect weak individuals, punish erring ones, reward others, to recruit new personnel, and to maintain dignity of the formal, as well as, of course, to carry on power struggles and to work for ends we would frown on.[3]

Dalton, for example, found the presence of a highly effective informal reward and punishment system, which was often useful for the organization, but was sometimes unfair.[4] In a study of the Navy bureaucracy, Page concluded that the Navy, in effect, had "another face," or an informal side that was consciously and deliberately hidden from the outsider's view. It did, however, provide a useful means of cutting through bureaucratic red tape.[5] In a study of city planning in the Twin Cities, Altschuler identified a number of informal rules enforced within the city that kept bureaucrats in line and incumbents in power.[6] Gouldner's study of specific bureaucracies in industry showed a number of the unintended consequences that occur which conflicted with the expected fast, efficient and impersonal happenings.[7] Blau's study of a law enforcement agency showed the dysfunctional nature of status differences and how the use of informal means of communication facilitated the making of necessary decisions.[8]

The cumulative effect of vast quantities of evidence from studies in a number of disciplines and in a variety of settings has established not only the existence of informal arrangements within organizations but the multiplicity of facets the informal organization may encompass.

The recreation and park administrator should not take formal assumptions and descriptions of organizational relationships and behavior too seriously. A useful way of beginning to consider an organization is to look at the formal structure, job descriptions, rules and regulations and hierarchical job-task pattern. However, the recreation and park administrator should be aware that there always will be a multitude of informal, often unarticulated relationships, rules, expectations and behaviors. He may never be able to unravel or fully understand them, but he can expect them to affect significantly what he can and cannot do. He should utilize or deal with them, both in moving the organization toward some of its important goals and in minimizing adverse effects upon himself.

DECISION MAKING

In early literature concerning administration, little attention was paid to decision making, the assumption seemingly being that decisions were made by

those holding the formal authority to do so on a highly rational basis and that decisions passed down the formal chain of command to those charged with carrying them out. This so-called "classical" or "rational" model of decision making has been sharply criticized by behavioral researchers.

Rational Model

The rational model has been described with minor variations by numerous administrative analysts. Lindblom's description is typical:

1. Identify his problem.
2. Clarify his goals, and then rank them as to their importance.
3. List all possible means — or policies — for achieving each of his goals.
4. Assess all the costs and the benefits that would seem to follow from each of the alternative policies.
5. Select the package of goals and associated policies that would bring the greatest relative benefits and the least relative disadvantages.[8]

If all conditions were ideal, the rational model might well be considered the best method of arriving at decisions; it corresponds with the rational method of thinking and problem solving. However, it has been criticized for being unrealistic because conditions seldom approximate the ideal.

A number of administrative analysts have considered the decision making process on a conceptual level, but only recently has much empirical evidence validated hypotheses or indicated how decisions actually are made in organizations. Gore used a case history approach in studying a sample of decisions of federal field offices in the state of Washington. His research indicated a wide gap between the actual process used and the rational model.[10]

March-Simon Model

One of the most significant contributions to a more realistic approach to decision making was a theoretical construct by March and Simon in 1958. Building upon previous theorizing and some psychological studies, they developed the concepts of "satisficing" and "search" behavior. In simple terms, it is suggested that a decision maker does not attempt to reach an optimal or best solution, but searches for a solution that will be "satisfactory." When this is found, search will stop and a new search will begin only when that decision fails to produce a satisfactory level of performance. These authorities also suggested that prior experiences of success and failure will determine the decision maker's aspiration level which, in turn, will be a criterion for what constitutes a "satisfactory" solution to a problem.[11]

Some empirical validity to the March and Simon theoretical model was given by Cyert and March. By using this model, they were able to predict with a high degree of accuracy the behavior of decision makers in a department of a large retail department store.[12]

Actual Decision Making

Some evidence has been acquired that actual decision making is likely to be fitful, sporadic and often tangential. Furthermore, this may produce better decisions over the long run than a more stable, orderly process focusing on clearly-defined end goals and done by a centralized decision maker, such as is posited by the classical process. Hirschman and Lindblom suggest that the latter process may actually hinder progress.[13] They question the traditional assumption that a decision once made to resolve an imbalance or problem settles the issue once and for all.[14] Cyert and March came to a similar conclusion, for they regard most decision making as a quasi rather than a complete process of conflict resolution in organizations.[15]

Festinger's theory of cognitive dissonance has some implications that tend to help explain the decision making process of at least some people some of the time. From his theory it is predicted that after making a decision, a person will tend to seek evidence to confirm the decision. Such evidence, when found, will tend to reduce the natural dissonance resulting from a choice where each alternative has good and bad features. The greater the conflict or problem in choosing, the more dissonance after the decision.[16] Ehrlich and his associates found some empirical evidence that tended to confirm Festinger's theory. Studies showed that after people had purchased new cars they tended to read ads about the cars they had already purchased more than ads about other cars.[17] This would tend to confirm the oft-expressed notion that decision makers make a decision and then attempt to rationalize it, rather than go through a highly rational decision-making process.

A considerable number of researchers and analysts have suggested that decision making in organizations can realistically be looked upon as a form of bargaining involving diverse interests and goals represented by participants inside and outside the formal organization. The groups and individuals might include, but not necessarily be limited to: superiors, subordinates, peers, lateral agencies in the bureau, legislators, clients, suppliers or any individuals or groups that feel a particular decision might significantly affect their interests. The relative power or influence of various coalitions around a given problem or issue is likely to be a significant factor in the nature of the decision, and this may often take the form of compromise. Therefore, such decisions may result in only a minimum modification of the already existing situation.[18]

Research on decision making in organizations has progressed far enough to establish that it is a process that does not conform very well to the model of rationality usually associated with the ideal problem-solving method. Administrators are faced with many, often conflicting, demands that must somehow be reconciled or balanced. Many factors limit a strictly rational approach, includ-

ing lack of information, ineradicable uncertainty, and the constraints of numerous environmental factors. Few administrators have the luxury of time and resources to pursue the ideal situation; they are likely to consider only a minimum number of what may seem the most significant factors or alternatives. While the process actually used may not be entirely rational by usual standards, it cannot be said to be completely undisciplined or irrational. It may be typified by "bounded rationality." Such a process is entirely functional in the fluid, dynamic type of environment in which administrators function. The completely rational method would likely be impractical and unfeasible for an administrator.

The nature of decision making that characterizes administration is of a strategic or "political" type. It means consideration of the total environment in which an organization functions.

It is probably unreasonable to assume that even a recreation and parks administrator will be able to lay aside completely his own biases, loyalties and personal interests while reasoning out decisions. It may be even more unreasonable to assume that other participants whose interests are at stake will be able to lay theirs aside and use a highly rational process with an undiluted commitment to the public interest.

CONFLICT

It was recently observed by one authority that "if someone wanted a fruitful area of investigation for at least several lifetimes, he could easily take up the topic of the management of conflict in organizations."[19] Until comparatively recently, the subject of conflict was rather carefully avoided in most literature on administration — certainly this was true of literature in the recreation and parks field. This attitude of ignoring or playing down conflict has apparently been because the traditional view of bureaucracies does not permit the notion of conflict as a natural phenomenon. Thompson has stated this viewpoint succinctly.

> As presently defined, bureaucratic organizations, like totalitarian states, are simply not committed to the formal resolution of intraorganizational conflict, nor to compromise. Where conflict exists, it is officially denied, hidden by fictions and myths, or attributed to the individual. It is to be removed by analytical processes of discussion and counseling, reorientation and training, or by the removal or error and misconception through communication. Once all the facts are known there can be no conflict, assuming "right-thinking" or "sound" persons. If conflict persists, individuals must be remade or eliminated, because conflict attacks the legitimacy of the organization. "Smooth operations" legitimize the organization.[20]

Recently, however, actual observation and empirical study of organizations have clearly revealed that various conflicts are a characteristic phenomenon of organizations, not simply a manifestation of irrationality or temporary aberra-

tion that disrupts normal smooth functioning.[21] In fact, it is accepted in many quarters that conflict can serve many useful purposes in an organization.

Katz's views, embodied in what has been called the "conflict of interest hypothesis," have been widely accepted by behavioral scientists in recent years. This approach views conflict as resulting largely from basic differences in interests among people in various hierarchical positions in an organization. Katz emphasizes the idea that conflict is not due just to misunderstandings, but from real differences in outlook or values between competitive subgroups within the organization as they pursue their own goals where organizational rewards or resources are limited.[22] Sayles' comments concerning competition among parts of organizations are typical of much current thinking:

> The concept of the organization as a unified, cohesive, homogeneous entity pitted ...gainst its rivals in a struggle for survival of supremacy has been shattered by actually observing the operations of large, complex organizations. The whole is fractionated into parts that compete with one another for relative status, growth, and special prerequisites.[23]

Lane, Corwin and Monahan call attention to the importance of a past history of power struggles and animosity in relation to organizational conflict. Organizational cleavages may be both the vestige of past conflicts and the basis for present and future ones. They note: "since the defeat of an idea of a group seldom requires complete annihilation, scars remain which provide the basis for cleavages in new conflicts."[24]

Dalton's highly entertaining exposé of the inner workings of machinations in a number of industrial firms gives an unusually revealing picture of continual, but often disguised, conflict over power, prestige and survival in organizational life.[25]

An important aspect of conflict in organizations is role conflict. Kahn et al in a nationwide study of workers found that almost half of them indicated that they were often caught in the middle of a crossfire of people who wanted different things. About 15 percent of these respondents were in this situation of role conflict frequently. Thus, conflict — often of a serious nature — was a "fact of life" for 48 percent of those subjects studied.[26] The administrator has role conflicts within himself because the various moral systems in which he operates often conflict with one another.[27]

Along with the emergent concept that conflict is inherent in organizations, research has also advanced the idea that conflict is not always necessarily bad, and in fact, may make some important contributions to the organization. Dalton, for example, cites a number of positive aspects of conflict in organizations.[28] Coser has shown that conflict may actually be a source of equilibrium and stability rather than merely a source of disequilibrium.[29]

Pondy's analysis of the functional and dysfunctional aspects of organizational conflict leads him to the conclusion that it may be either, depending upon

the effect on the organization's productivity, stability or adaptability; furthermore, since these three states of an organization are not entirely compatible, conflict may be simultaneously functional and dysfunctional.[30]

Some executives may deliberately encourage competition or conflict in their organization. As paradoxical as this may seem at first glance, it can give an executive many opportunities to enhance his status as omniscient, all-powerful leader to be able to step in at opportune times as benevolent arbiter to resolve conflicts. Apparently, Franklin D. Roosevelt used these tactics.[31] Similarly, Golembiewski postulates that "an administrator's key job, then, is not to make peace within his organization, but to manipulate the natural warfare in pursuit of the organization's purposes."[32]

Conflict resolution is one of the ways Golembiewski suggests an administrator may use to prominently display his ability to handle stressful situations and thus gain the confidence and allegiance of organization members.[33]

It may cause recreationists considerable discomfort to contemplate administration as a process replete with a high degree of, if not almost continuous, conflict but this is probably going to be true in any context except where some one figure or power structure is able to impose its will, thus short-circuiting the decision-making process. Since recreationists generally express preference for democratic methods, they must live with such consequences.

The recreation and parks administrator should recognize that a certain amount of conflict is inevitable in any organization. It should not be regarded as being entirely without usefulness. Not only might it have some functional consequences for the organization, but may even help him solidify his position as a leader. Certainly, however, some conflict is dysfunctional, and if uncontrolled, may have serious organizational and personal consequences for members.

POWER

A statement in a recent book on public administration would likely prove startling to many recreationists: "Officials who staff administrative agencies play a game of seeking to acquire, apply and retain power."[34] Social researcher Dorwin Cartwright further points up the importance of power:

> We have found that we simply cannot understand the relations among the mental health professions, the behavior of children in summer camps, the making of decisions within the family, or the effectiveness of leadership in work groups without knowing about the power situation.[35]

For many years, a minimum of thoughtful analysis or research was done on power. The subject appeared to be an anathema in many circles, including parks and recreation. Nevertheless, as far back as 1927 Hauser found through interviews with many business executives that they had a great craving for power, which tended to motivate them highly.[36] A number of writers are in agreement

that a frontal assault through empirical research on the problem of power has not really been launched yet.[37] Many discussions concerning power in the literature rely on generalizations based on case studies or observations of events, organizations or incidents from which various inferences have been made by interested analysts. Based on existing research, there seems to be considerable agreement that the acquisition and maintenance of power are extremely important concerns and activities of administrators, and that power is essential to effective administration.[38]

Dalton's work has given hitherto unarticulated insight into the constant and intense conflicts between individuals and groups in pursuit of their own interests, and in the acquisition and maintenance of their power positions.[39] Piotrowski and Rock conducted a study of successful and unsuccessful business executives and found that the executive's goal is power.[40] Sociologist Robert Presthus' analysis of organizational life led him to conclude that "the selective process in big organizations brings the power seeker to the top."[41] Perrow studied group behavior in two industrial firms and concluded that "power is a preoccupation of the managers of the firms."[42]

Leadership and Power

A number of research studies and the hypotheses of organizational theorists seem to link leadership very closely with power. Kelly, for example, in his discussion of the "organizational concept of leadership," notes that it:

> . . . gives proper weight to the importance of power and is predicated on the notion that the leader can only be effective insofar as he has power, i.e., that senior management (the boss's boss) will give him the support and resources which he requires to provide rewards and punishments for his subordinates.[43]

Bennis has formulated a definition of leadership that has as two of its components "power" and "influence," the other being a "process."[44] Kaplan cites a study by Kenneth Arrow which showed that under certain conditions "there is no escaping the necessity for active leadership in a group."[45] This would seem to refute the idea that democratic leadership can always work or that everyone in the group can always share in performing acts of leadership. Kaplan, therefore, observes that somebody has to be prepared to use power in organizations; in other words, "leadership must be exercised and that this involves the use of power."[46]

Cartwright, in analyzing a number of research studies concerning supervisory practices and employee satisfaction, concluded that supervisory training programs that ignore the power structure of the organization are not very promising and that there was no reason to view favorably any theory of leadership which disregards power.[47] Perhaps that is why Fiedler's Leadership Contingency

Theory has received considerable acclaim. He postulates that a leader's effectiveness is contingent upon the favorableness or unfavorableness of the situation for him. This, in turn, is dependent upon (1) leader-member relations, (2) task structure and (3) position power of the leader.[48]

Role Theory and Communication

Cartwright sees that power must be involved in role theory. He cites a number of research studies which point to the inescapable conclusion that the phenomena of role theory must be bound up with the harder properties of power, in contrast with the softer concepts of expectations and perceptions.[49]

Similarly, with respect to communication, Cartwright finds that power must be recognized as an important consideration since communication is the mechanism by which interpersonal influence is exerted. Numerous studies cited reveal that research that starts with communication as the foci, ends by being closely related to power.[50] Various research studies have pointed to the fact that the power of various participants in a group may be related to their place in the communication structure.[51]

Effectiveness of Power

The use of power is often viewed as a Machiavellian-type manipulation of others. Perhaps this is one reason the subject has been ignored in recreation and parks literature. There seems to be little room for doubt that this is often the case. A recent newspaper article suggests that "office politics or power games is increasing in business organizations. Merit, hard work, etc., do not pay off as well as knowing how to play company politics — which is really the "distribution of power."[52]

As reported, this is the nub of several research studies. The threatened business recession is considered as one cause of the increase.[53] It causes one to consider seriously the possibility that budget cutbacks, layoffs and retrenchment in public recreation agencies may cause the same effect.

Schlenker and Tedeschi conducted an experiment on the effects of the exercise of coercive and reward power where interpersonal attraction was involved. Their results tended to support earlier research — coercive power was more effective. Thus, they concluded that Machiavelli's observation that it is much safer to be feared than loved may be quite accurate.[54] These researchers' observations also led them to believe in the wisdom of Henry Adams' statement that "a friend in power is a friend lost." It was found that when a person has unilateral coercive power, he tends to disregard personal relationships in exercising that power.[55]

Researchers have recently developed a "Mach V Scale" to measure the Machiavellian tendencies of individuals. The results of research using the scale have shown that persons scoring high engaged in more manipulation and were more adept at it. Researchers concluded that the more time people spend interacting with others in various roles, the more Machiavellian they are.[56] Such frequent interaction is, of course, a recognized characteristic of administrators.

While Machiavellianism in the acquisition and use of power may be quite typical in organizations to a degree and at various times, the desire for power for its own sake may not be the only reason for its use. Possession of power actually enables an agency to conduct a more effective program. Also, lower-level personnel may pursue power to secure or perpetuate certain fringe benefits.[57] David Mechanic examined the sources of power of lower-level persons in various types of organizations. Drawing on previous studies, he set forth several postulates concerning conditions under which lower-level participants such as secretaries, hospital attendants, prison inmates, etc. obtained and used power. He found coalitions among persons in various divisions of organizations which enable them to handle needs more efficiently on an informal basis.[58]

Research on power might well be summed up by Lippett's observation that "studies tell us much more than we knew formerly about the distribution of power between superior and subordinate, and how its use or abuse affects morale, productivity, and human satisfaction."[59]

Power is an often overlooked or minimized fact of life for administrators in every field. Some seek power for aggrandizement and status, others seek to acquire or maintain it as a self-protective device from the depradations of the power-hungry. The use of power seems necessary for individuals to perform certain leadership functions and often permits agencies to function more efficiently and effectively.

Summary

The above are just a few of the many areas in which research on administrative behavior is being conducted on various fronts and in a variety of disciplines. Such phenomena as communications, role theory, goals, cliques and interest groups, leadership, environment, motivation, organization boundaries, rules, professionalism vs opportunism, etc, are coming in for scientific investigation, often with sophisticated techniques. It is remarkable that there is almost a complete lack of such research in the field of parks and recreation administration. There are a number of possible reasons for this:

1. It has been assumed that the administrative processes and activities (behavior) are basically the same as those in other fields such as business administration, educational administration and public administration in general.

2. It has been assumed that administrative behavior is so mechanical, standardized and predictable that the essential principles have already been discovered.
3. Some may believe that a study of administrative behavior might be of some value to students and practitioners, but that it might expose them to ideas that are opposed to the highly idealistic or humanitarian value system professed by spokesmen in the field.
4. Writers in the field have not had sufficient experience "on the firing line" in administration to have gotten a realistic notion of what it is all about.
5. There may be no real desire on the part of writers or spokesmen in the field to paint a realistic picture of the nature of recreation and parks administration.
6. There is insufficient research expertise in the field of parks and recreation to research administrative behavior in the field effectively.

It is past time when the field of parks and recreation must become more introspective and self-critical. What we are saying and teaching must be examined to determine whether it conforms with reality or some idealized model of what we imagine or would like it to be.

NOTES

[1]For good discussions of the informal organization, see F. J. Roethlisberger and W. J. Dickson, *Management and the Worker* (Cambridge: Harvard University Press, 1941), p. 524ff. and Chester Bernard, *The Functions of the Executive* (Cambridge: Harvard University Press, 1938), chap. 9.

[2]Rensis Likert, *The Human Organization* (New York: McGraw-Hill, 1967), p. 73.

[3]Melville Dalton, *Men Who Manage* (New York: John Wiley & Sons, 1959), p. 222.

[4]Ibid, et passim, esp. pp. 194-215.

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RECREATION AND BEHAVIOR MODIFICATION

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Changes in an individual's behavior can have positive or negative reactions as viewed by society. Extreme poverty has been given as reason for stealing food and clothing. Boredom has been listed as a possible motivating factor for illegal use of drugs. Desire for recognition has prompted outstanding performance in athletics or in academics. Quality leadership often has been given as the key to success of a recreation program. In all of these situations, one or more factors stimulated an action or reaction which resulted in a modified behavior. With substitute motivating stimuli, a different resulting action might have occurred. For example, in the case where extreme poverty caused stealing, extreme poverty may also have given reason for increased hard labor, more creativity or some other factor that would have resulted in a socially acceptable means for securing the necessities of life.

Recreation has been viewed by some as a response, by others a stimulus. The foundation of recreation rests on the principle that participation needs no reward other than the participation itself. This does not mean that secondary values cannot occur or are undesirable. The well-rounded personality, physical fitness and release from tensions have been offered as examples of desirable secondary values. If these become the primary reason for participating in selected leisure activities, then the activity is the stimulus or substitute stimulus attempting to bring about a conditioned response — a modification in behavior. But even if participation in a leisure activity is for the sole purpose of recreating, it is still possible that secondary values and behavior modification will occur.

Regardless of the intended ultimate objective for participating in a leisure activity, variations in the type of motivating stimuli can alter the results. The variables that effect behavioral changes are often difficult to identify, to say nothing about measure. To complicate the situation further, the amount of effort required of one individual to achieve a specified goal may be quite different from that required for a second individual. Thus, if the practitioner is to use behavior modification in his program, it will be to his advantage to know what the conditioning variables are and how to use them.

Behavior modification is commonly thought of as a process of altering a given situation or condition, related to behavior, in a desired direction. Before this can be accomplished, the practitioner must know what the situation is at the time he starts, if he wishes to measure the direction and amount of change.

This level at which the behavior is occurring when the process is initiated is called the baseline.

Being able to identify and measure behavior is essential for accurate research, and this is where another problem is encountered. Valid and reliable instruments for this purpose, which might be used by researchers or practitioners, are not available for every area within the field of parks and recreation. Indeed, it would be nice for the public recreation administrator to conduct behavioral modification research among the participants of his program, show the positive values resulting and thereby justify his budget requests. In like manner, it would be nice for the park planner to test his proposed changes in a park development on a sampling of society to see if his plans will have a positive effect. Similar examples can be envisioned for those in employee recreation, youth serving agencies and student union management. However, the recreation therapist is probably the person who will first be able to use the process of behavior modification as a tool in the field of leisure activities. In an institution like a mental health center or physical rehabilitation center, where the variables affecting the daily life of the patients are more easily controlled, and in fact must be controlled to achieve the desired therapeutic goals, it will be easier to design research that can be measured.

By looking to certain other fields, we see that behavior modification research has been under way for more than a decade. In fact, concern for use of outdoor play equipment (Buell, Stoddard & Harris 1968) and for social-recreation skills in children (Allen et al. 1964) has resulted in the design, conducting, evaluating and publishing of research. In addition to published research, other published works contain behavior modification literature related to the recreation field. Row and Errileson wrote specifically on behavior modification in therapeutic recreation in *Behavior Modification for the Mentally Retarded* (Thompson & Grabowski 1972). The fields of education, special education, educational psychology, guidance and counseling, and sociology have reported doctoral studies in dissertation abstracts (see Selected Readings). While these are not written in the field of recreation, some were concerned either directly or indirectly with recreation and related social skills. Studies in behavior modification have been conducted by researchers in our field. For example, such research is being conducted in an institution by a recreation therapeutist under the cooperative guidance of a psychologist and a recreation educator. Becherer has been trying to cause and measure a recreation behavior modification using reinforcement to achieve a generalization (Becherer 1974). She is using independent observers to record a child's actions at 10-second intervals during periods that the conditioned response is being elicited. The results of this study and any others now underway are important, but not as important as the realization that our field of recreation can work cooperatively in research to better understand problems common to more than one field.

There seems to be an increasing recognition of the need for usable techniques that will evoke a desired behavior. The Leisure Behavior Research Laboratory, under the direction of Bishop, has completed several research projects. In one, for example, to determine how to increase the percentage return of lengthy questionnaires, a reward of a free dinner was made as a positive reinforcement (Witt, Bishop & Salter 1971).

As mentioned earlier, accurately identifying and measuring behavior is a major problem. Researchers are limited by the lack of ability to single out and measure many types of behavior. Why do some people participate in one type of recreation activity and not another? Is there some characteristic that the participants of one type activity have in common that is unlike people in general? Solutions to these problems will assist in efforts to behavioral modification.

Conclusion

It must be remembered that little is known about why man behaves as he does. However, it should be recognized that there has been an increase in the quality and quantity of effort to better understand what is involved in leisure behavior. Most encouraging is the realization that the recreation field can play a role in behavior modification, and in a positive direction.

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RECREATION AS A SOCIAL INSTITUTION

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The original intent of this paper was to provide the practitioner with broad trends in the changing characteristics of recreation as a social institution. However, in developing the strategies to meet such an objective it became clear that only a tentative statement could be made at this time. Therefore, this paper must be considered a preliminary and partial statement of the assignment. The strategies and decisions made during preparation were many and arbitrary. While the literature search in journals spanned an eight-year period (1965-1973), there were no articles on recreation as a social institution until 1970. Other references were used as background to develop the subject of social institutions. Also, a decision was made to limit such a search specifically to recreation even though research in the areas of natural resources and parks as environments where recreation is pursued is an inseparable component of the recreation movement.

INSTITUTIONS

But first one must define the term "social institution." In the *Dictionary of Social Sciences*, institution is defined as:

> . . . an aspect of social life in which distinctive value-orientations and interests, centering upon large and important social concerns, generate or are accompanied by distinctive modes of interaction. Its uses emphasize important social phenomena and relationships of strategic structural significance. (Schneider 1964:338)

In other words, as Arenson notes (Lasswell et al. 1965, p. 384), the generic term institution is an abstraction, not a perceivable reality. As an example, one can perceive *a* family, but one cannot observe *the* family as a social institution. Therefore, one must be careful to avoid the confusion that can arise between the concept *institution* and the term *association*. In the final analysis, an association is essentially composed of people while an institution is essentially composed of interactions and interrelationships. One is saying there is a difference between 22 chosen men on a football field and the game of football.

Institutions, then, are social patterns that have distinctive value orientations, direct the ordered behavior of human beings and characteristically tend to be permanent and to resist change. They exist because they have been reasonably successful in meeting societal needs.

Assessing changes in institutional forms and relationships, however, may be difficult. Lundberg, Schragg and Larsen (1963) suggest that only in terms of

specific standards can a particular institutional arrangement be evaluated. For example, in the institution of the family, monogamy may be declared as "better" than polygamy and vice versa. Likewise, certain types of recreation may be considered "better" than others, thereby suggesting a value orientation of the culture towards leisure alternatives. Further, predictions can be made concerning which value systems are likely to exist and develop in a given society on the basis of what is known about the interrelationships of institutions (Lundberg, Schragg & Larsen 1963, pp. 483-484).

Elements of Institutions

In a highly differentiated society such as ours, one could logically expect to find recreation institutionalized. Certainly recreation functions within such value systems as government, education and the family. It follows then that no institution, however classified, may be fully understood in isolation. However, Witmer (1942) does suggest one can gain an understanding of an institution such as recreation by looking at the dynamics of four elements they have in common. These are *activities, personnel, a charter and norms,* and *material apparatus* (cf. Miller & Robinson 1963, pp. 15-17), all of which are organized and systematized to fulfill some social function. Since recreation is a social function and would logically meet these criteria, one should be able to investigate organized recreation at this abstract level. This paper addresses itself to one of these elements, that of activities.

Values

However, one must first consider the underlying theme of the American value orientation towards leisure and recreation. While there is a quantity of writings on institutional patterns of the family, work and leisure, few authors have written of their relative positions as interrelated value systems. Kluckhohn and Stodtbeck (1961) suggest that American occupational-economic behavior is associated with middle class values while other studies indicate that this value system dominates other value-oriented behavior.

Jackson (1973) pursues this line of inquiry by asking whether subgroups identified as being variant to the middle class in their value orientation would also subscribe to variant leisure attitudes. He asked the question whether, in contrast to the dominant profile of middle class America, lower class Mexican Americans would subscribe to a different set of beliefs in terms of middle class values and leisure attitudes. He found that this ethnic subgroup was variant on both dimensions. This group showed in their leisure attitudes greater orientation toward the recreational value sphere than the occupational sphere of the middle class. He comments that recreation professionals often express concern for the

worthy use of leisure especially with regard to dependent groups such as the poor and the elderly which he wonders might be interpreted as a logical outgrowth of their values as middle class professionals. He further suggests that subscribing to a need for cultural uniformity does not provide adequate guidelines for leisure planning and, second, that many of those responsible for providing direction and substance to leisure programs and services are committed to values of the dominant middle class culture.

Variant value-orientation is also reflected in the work done by Clark et al. (1971) where their research findings suggest that campers and managers of campsites, while endorsing the same camping goals, disagree as to the types of activities needed for attaining these goals. Furthermore, they found important differences in the way both groups perceived behavioral problems in the campgrounds. The authors question whether these differences may be attributed to the social goals and urban behavior patterns of campers compared to the more traditional, natural environment-oriented expectations for camping behavior held by the recreation managers.

The dichotomy between urban value systems and the more traditional natural environment orientation is further supported in a study that focuses on changing value-orientation to activities and their delivery. Hendricks (1971) notes that leisure behavior differs with situational antecedents, in particular the urban environment and life styles. Specifically he focuses on the types of leisure behavior exhibited by apartment and single family home dwellers. The author was concerned with whether increased urbanization brought decreases in the traditional forms of recreational expression. The assumption made was that apartment dwellers might be considered representative of an urban orientation and their behavior could be considered indicative of behavior we might expect from urban residents of the future. Using urban activities (going to museums, social dancing, etc.) and outdoor activities (camping) as variables he found that apartment and home dwellers differ in their orientation toward these activities. Further, they differ to the degree to which the two groups take advantage of the types of activities available. Apartment residents made more use of urban activities while single family home dwellers were involved to a higher degree in activities involving the outdoors in a fashion similar to that which we would encounter in a rural environment.

These studies seem to confirm what social commentators are saying — that the American society is not a melting pot (see Novak 1972 as a commentary on this point). Practitioners need to recognize the pluralistic nature of our institutional value systems. Recreators are then called upon to view their obligations for providing service as involving what Danforth and Shirley call the principle of individual differences (1970, p. 42).

Of equal importance for consideration is the thread of speculative evidence that new value systems are emerging, value-orientations that are rooted in the

cultural mix of large, urban America rather than in the natural environment of the traditional rural America.

Activities

One of the basic elements of a social institution is *activities*. Recreation activities can be considered characteristic of recreation for they are the medium of the delivery system. They function as the goals for municipal agencies and as tools for such diverse settings as schools and rehabilitation and industrial establishments. They form part of the communication media, of tourism, and commercial ventures. These make up part of the cluster of activities by which the institutionalization of some parts of the recreational culture patterns may be identified (Miller & Robinson 1963, p. 16).

Activities may be viewed as (1) having content and form or (2) as being seated in personal, social and physical environments. It is within this latter context that some recreation research is generating evidence which suggests that activities considered as ends in themselves fall short of explaining true leisure/recreational behavior. Knopp (1972), for example, suggests that the environments may be more closely related to the function of recreation than form.

Within the social environment it can be stated that one must know the causes as well as the consequences of leisure behavior choices. Recent studies report that early childhood recreation does influence later participation patterns of adults. Sofranko and Nolan, for example, provide a focas to their findings by stating that "much of what occurs in adult life stems from participation in social forms and institutions during childhood and from the transmission of values and attitudes of parents and other groups in which individuals are members" (1972, p. 7). They found, as expected, both one's residence as a youth and the source of introduction to the activity were related to the extent of participation during one's youth. Contrary to their expectations, they found intervening variables from participation as a youth to adult levels of participation reduced the direct influence of current participation choices. They conclude that in the future youths will have fewer opportunities to participate in hunting and fishing activities when their parents have substantially reduced their involvement as adults. One consequence of this reduction will be a proportional decline in participation in these activities among all adults. They further suggest that if work situations become more amenable to increased participation in recreation activity as an intervening variable, this condition could bring about decreased importance of background influences. In other words, situational variables are effective in anticipating recreation behavior and choice of activities.

This speculation is supported by studies that have investigated situational antecedents to leisure behavior. Field and O'Leary identified the social group as a basis for leisure participation and activity choice. In a survey of an adult

population and their participation in water-based activities they found that the participants' social characteristics did not account for the frequency with which they participated in a given activity. However, when they considered the social group in which the participation occurred, the differential frequency of participation was more fully explained. The authors speculate that "activities appear to be changeable (and) in terms of identifying human behavior associated with leisure settings or places, too much emphasis has been placed on what people do" (1973, p. 25).

These findings are further supported by Cheek (1971) who found the social group to be important to participation patterns in the use of parks and by Bultena and Wood (1970) where the group proved to be important to the elderly and their recreation pursuits.

Further supporting the contextual argument of situational antecedents to choice of activity and leisure behavior is the study by Witt and Bishop (1970). In their attempt to document empirically the various theoretical explanations of leisure and recreation they established a relationship between past events and subsequent behavior. They gave students a situation such as "you have just lost all of your class notes for your hardest class. You return from searching for them feeling frustrated and under extreme tension." The student was given a variety of choices from which to decide what would be his subsequent action. The diverse situations aroused various subsequent leisure behavioral attitudes depending on how the student interpreted the situation.

The situational context of behavior, though often observed, is not usually incorporated into the actual planning and development of recreation programs. What is being suggested to the practitioner is that participants may approach the same activity in different settings or participate over time in a variety of activities to fit differing personal and social needs. Practitioners need to be aware of these needs and provide the most flexible of activity variety to meet the needs.

How much awareness may be more fully fostered is suggested by Steele and Zurcher (1973) in their exploration of the utility of the concept "ephemeral role" for integrating social and psychological factors which influence an individual to choose a particular sport activity as a leisure pursuit. The voluntary choice of a person to participate in a leisure activity is the central characteristic of an ephemeral role. Noting that the enactment of dominant social roles significantly affects self-concept and choice of friendship networks, the authors found that when dominant roles conflicted with aspects of self-concept or with expectations for interaction or when individuals were dissatisfied with the dominant roles, they would enact ephemeral roles to meet these discrepancies. This finding suggests to the practitioner that when an individual's work role does not meet his expectations, the person would be expected to turn to his leisure role for self-fulfillment.

This line of inquiry then adds to the growing concern of practitioners who feel that recreation professionals need to be more experienced in understanding and meeting human needs and less concerned with the content and form that expression of need takes.

In this preliminary review of recent research this author has found the documentation of recreation as a social institution mostly descriptive and historical. Little systatic effort has been made to document relationships within recreation or relationships between institutions (i.e., education and recreation). As stated earlier, an institution is by definition an abstraction. Evaluating its effectiveness is dependent on theoretical explanations, lacking today in recreation research. Until research gets out of what Brown and his colleagues (1973) call the "so what" stage, practitioners are hindered in their evaluation of how well they meet the needs of American society. What this author is suggesting is that there is a wide range of social variables that need to be incorporated into meaningful conceptual schemata. In the absence of a commonly accepted theoretical framework for understanding the recreational process it is difficult to establish criteria for judging the behavioral consequence of a particular recreation environment.

On the other hand, practitioners should recognize the researchers' preliminary evidence that urban environments and their plurality of value orientations and the diminishing importance of the activity per se are changing the character of recreation. What has been presented, however, is tentative and speculative. Only replication and further inquiry will allow for the development of middle range theories that are necessary so that recreation research can leave behind the "so what" position current today. Only then will recreation researchers have something definitive to say to the recreation practitioner.

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THERAPEUTIC RECREATION RESEARCH AND THE RECREATION PRACTITIONER

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When recreation research is discussed among recreation professionals, someone usually quips, "What research?" This type of humor is based partially upon a realistic feeling concerning the type and quality of work labeled "research," yet it also reflects the general lack of awareness as to the actual state of recreation research in each of the subspecializations, including recreation services for the ill, disabled, disadvantaged and aging.

There have been numerous references in the professional literature to the state of therapeutic recreation research. However, none of these has been based upon more than a casual scan of the research available and none has reported a detailed analysis involving a systematic collection and interpretation of raw data. Part of the rationale for this situation is probably due to the arduous nature of such a task. Also, because a need has persisted for some time for such information, vague impressions have been substituted for literal data to meet this need.

The difficulty of analyzing and evaluating therapeutic recreation research has been reduced partially by the development of the computer-based information acquisition, storage, retrieval and dissemination center known as TRIC — Therapeutic Recreation Information Center. This first systematic effort to gather together and tag with numerous descriptor labels the literature produced by and related to recreation service for ill and disabled persons has now made possible several analytical tasks that previously would have appeared far too unwieldly in view of the cost-benefits involved. This paper represents a first step in utilizing this capability of the TRIC system to provide an organized data base of research related to therapeutic recreation for analysis. Consequently, the levels chosen have been kept relatively simple to include a larger scope in the analytical process.

METHOD

To obtain document references and abstracts concerned with therapeutic recreation research, an information request was submitted to TRIC utilizing

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the general descriptor term "research reports." In the process of acquiring materials for the TRIC data base, any formal presentation of research findings is indexed with this general descriptor as well as specific conditions of the study such as content area, setting, methodology and general classification of the population studied, particularly age classifications and social constellations.

The computer produced from the TRIC data bank 210 citations and abstracts which had been published between 1965 and 1973 (the scope of the systematic retrieval and storage efforts at the time the search was prepared) and identifiable as reports of research related to some aspect of recreation service to the ill and disabled. A content analysis of these citations and abstracts was undertaken to determine the frequency of research studies conducted in relation to the variables of content area and methodology (Table 1)* and content area and setting (Table 2). The frequency of studies and their percentage distribution were computed for subject categories (Table 3), method categories (Table 4), setting categories (Table 5) and content area general categories (Table 6). The accuracy of this information was checked through two procedures. More than 100 of the studies were compared with their prepared abstracts, and the results of the computer printouts in each content area were cross-checked with the articles and all of the citations and abstracts used in the content analysis.

RESULTS

The simple fact that 210 research studies had been reported in the professional literature or made available through seminars, conferences, etc. is, perhaps, the most significant finding of this effort. It would appear to answer, at least in part, the question "What research?" when discussing research related to therapeutic recreation service specifically, and may also give some pause for consideration to other areas of recreation service.

In addition to the revelation that the number of research efforts gives to us, analysis also revealed information regarding preconceived notions about methodologies, content areas and age categories. It has generally been assumed, in academic circles, that most therapeutic recreation research focused on mentally retarded children in institutions and involved the survey technique. In terms of research design, it was surprising, therefore, to discover that 68 studies (32 percent of the group examined) employed an experimental design. While Table 1 reveals that there were more studies in mental retardation than in any other area, the other areas are well represented and appear to be gaining in significance,

*The author would like to acknowledge gratefully the technical assistance of Lorna Fetter of the Department of Recreation, University of Waterloo in the preparation of Tables 1-6 which appear at the end of this chapter.

particularly aging and social deviance, with a recent focus on recreation in correctional settings.

Therapeutic recreation research tends to be conducted within an institutionalized framework (Table 2); however, the fact that 25 percent of the studies examined (Table 5) took place in a community setting indicates an increasing trend in this direction. While the data did not reveal a correlation between methodology and setting, the impression received during the content analysis procedure was that a large concentration of the community research used either the survey or case study technique and most of the experimental research was conducted within the more structured framework of an institutional setting.

The general impression that the age classification represented by children receives more attention than any other category was supported by analysis (Table 3). However, the categories of youth, adults and aged make strong showings and appear to have increased in recent years. This is in line with the statement made earlier that the content areas represented by the aging and deviant youth have received increased research interest lately.

DISCUSSION AND CONCLUSIONS

The results of the content analysis of therapeutic recreation research have provided an empirical base for seriously questioning some assumptions related to research on recreation for the ill and disabled; there also is empirical support for other assumptions. This is not at all surprising with this type of basic analysis. What is significant is which assumptions have been supported by the analysis and which have been rejected.

This investigation offers the educator, researcher, practitioner and even casually interested observer several meaningful starting points from which to begin seeking answers to questions of specific interest. First, it answers, in more than general terms the question "What research?" While the quality and significance of the research efforts examined have not been evaluated in this report, at least we now have a clearer picture as to the *what, who* and *how* of therapeutic recreation research activity. Evaluation of this activity should be the next step and will require a rigorous application of systematic evaluation techniques to be meaningful.

An additional revelation of the content analysis was the depth and lack of depth in simple frequency and percentage terms of research activity in specific areas. It is often of interest to persons concerned with an area of recreation service to determine the *where* and *how much* of research activity as a guide to their decision-making efforts. For example, a student wishing to engage in depth analysis would not want to go to a content area which was sparsely researched. This would also be true for a leader or supervisor of a recreation

program for ill and disabled persons interested in applying the results of the most recent studies to his work. Granting agencies, both public and private, may be interested in categorized breakdowns of the type presented here upon which to base further research funding decisions. In short, basic analytical activity of this nature can be used in numerous ways.

In many respects, the information produced by a content analysis of the selected research studies can be reacted to in the manner of a Zen Buddhist poem: you can take it any way you want to. Several years ago Lois Timmins wrote an article about therapeutic recreation entitled "The Sound of One Hand." This title was taken from the question posed to students of Zen Buddhism: "What is the sound of one hand clapping?" We can create our own response to this question as it relates to our concern with the research process in recreation service: *The sound of one hand clapping is what the researcher hears when he presents his findings to the field – the practitioner, student, administrator, educator and even other researchers – and none is attentive to his efforts. But when these same people seek out the results of research and willingly endeavor to perform the difficult task of applying the research results to their specific situations, that becomes the sound of many hands clapping.*

It cannot be left unstated that the researcher also has a responsibility to be concerned with the needs of those seeking to apply research to their work. It is, in fact, a situation of dual responsibility and mutual interdependence. Without it, all the realm of research will be symbolized by "the sound of one hand clapping." We each have the opportunity to determine if that is all we wish to hear.

TABLE 1

RESEARCH METHODOLOGY IN RELATION TO CONTENT AREA

CONTENT AREA	METHODOLOGY					
	SURVEY	EXPER.	CASE STUDY	HISTORICAL ANALYSIS	OTHER	TOTAL
AGING						
Well Aged	4	5				9
Nursing Home	6	6	1			13
Sub-Total	10	11	1			22
MENTAL ILLNESS						
Organic						
Psychogenic	3	6	1			10
General	8	6	3	1		18
Sub-Total	11	12	4	1		28
MENTAL RETARDATION						
Mild	6	8	1		1	16
Moderate	2	6	2			10
Severe		3	2			5
Profound		3				3
General	6	6	2	2	2	18
Sub-Total	14	26	7	2	3	52
PHYSICAL DISABILITIES						
Blind	4					4
Deaf	1		1			2
Respiratory					1	1
Ambulation	3	1				4
Cardiovascular	2	1				3
Neurological	3	6				9
Multiple	5				1	6
Other	9	4				13
Sub-Total	27	12	1		2	42
SOCIAL DEVIANCE						
Youth	8	4	7			19
Adult	4	1	2			7
Sub-Total	12	5	9			26
GENERAL ILLNESS	2	1	1			4
OTHER (COMM. SURVEYS)	28	1	2	5		36
Sub-Total	30	2	3	5		40
GENERAL TOTALS:	104	68	25	8	5	210

TABLE 2

RESEARCH SETTING RELATED TO CONTENT AREA

CONTENT AREA	SETTING						
	HOS-PITAL	CAMP	SCH.	REHAB CTR.	COM-MUNITY	OTHER	TOTAL
AGING							
Well Aged	2			3	3	1	9
Nursing Home	9			4			13
Sub-Total	11			7	3	1	22
MENTAL ILLNESS							
Organic							0
Psychogenic	8				2		10
General	7	6	1		2	2	18
Sub-Total	15	6	1		4	2	28
MENTAL RETARDATION							
Mild	1	2	9	1	3		16
Moderate		3	5	1	1		10
Severe	2		3				5
Profound			3				3
General		4	9		3	2	18
Sub-Total	3	9	29	2	7	2	52
PHYSICAL DISABILITIES							
Blind			1	1	2		4
Deaf	1		1				2
Respiratory						1	1
Ambulation			2	1	1		4
Cardiovascular					3		3
Neurological			3	4	2		9
Multiple		1	2		3		6
Other	3	3	2		4	1	13
Sub-Total	4	4	11	6	15	2	42
SOCIAL DEVIANCE							
Youth	1	6	5	4	3		19
Adult	1			3	2	1	7
Sub-Total	2	6	5	7	5	1	26
GENERAL ILLNESS	4						4
OTHER	1	1	5	1	18	10	36
Sub-Total	5	1	5	1	18	10	40
GENERAL TOTALS:	40	26	50	23	52	19	210

TABLE 3

FREQUENCY AND PERCENTAGE DISTRIBUTION OF RESEARCH STUDY *SUBJECT* CATEGORIES

SUBJECT CATEGORY	# OF STUDIES	%
Children	62	29
Youth	36	18
Adults	40	19
Aged	22	10
Family	12	6
Agencies	28	13
Other	10	5
Totals	210	100

TABLE 4

FREQUENCY AND PERCENTAGE DISTRIBUTION OF RESEARCH STUDY *METHOD* CATEGORIES

METHOD CATEGORY	# OF STUDIES	%
Survey	104	49
Experiment	68	33
Case Study	25	12
Historical Analysis	3	1
Other	10	5
Totals	210	100

TABLE 5

FREQUENCY AND PERCENTAGE DISTRIBUTION OF RESEARCH STUDY *SETTING* CATEGORIES

SETTING	# OF STUDIES	%
Hospital	40	19
Camp	26	12
School	51	24
Rehabilitation Center	23	11
Community	52	25
Other	18	9
Totals	210	100

TABLE 6

FREQUENCY AND PERCENTAGE DISTRIBUTION OF RESEARCH STUDY *CONTENT AREA* GENERAL CATEGORIES

GENERAL CONTENT AREA CATEGORIES	# OF STUDIES	%
Aging	22	10
Mental Illness	28	13
Mental Retardation	52	25
Physical Disabilities	42	21
Social Deviance	26	12
General and Other	40	19
Totals	210	100

THE FUTURE OF LEISURE STUDIES

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Recently, a number of leisure studies departments were added or developed on many campuses across the United States and Canada; this action should have been preceded by some consensus as to what constitutes leisure studies. Such consensus is needed so that a sound basis may be established for a relevant, productive and meaningful field of study.

A lack of a unifying "theory" on leisure is seen as the stumbling block to any productive leisure studies (Bull 1973a, p. 146). This may be due to the apparent lack of agreement on what leisure is. Sometimes it appears as though the concept of leisure is looked upon in three irreconcilable ways:

1. As a block of free time as opposed to work time—the time beyond that which is required for existence and subsistence (Brightbill 1960, p. 4).
2. As a form of human activity as opposed to work activity. Leisure in this case is to be used for relaxation, diversion and personal improvement (Dumazedier 1967, pp. 16-17).
3. As a state of mind of a human actor which may be used to analyze human activities (deGrazia 1964, pp. 5-6).

During the annual meeting of the Midwest Sociological Society in Kansas in April 1972, the four panelists on the leisure studies section concluded that the field is in fact an amalgamation of subfields such as voluntary organizations, family, sport, recreation, etc. They stated the hope that as a theory of leisure behavior is built up, the various subfields will be covered up by it (Bull, 1973a, p. 145).

In this paper we will try to find if it is possible to provide a "theory" of leisure behavior, who will provide it and how.

THEORY CONSTRUCTION

Ideally, a theory should provide for a conceptual framework which allows for observation, description and mainly explanation. Explanation requires a general statement of universal nature (Willer 1967, p. 26) which, once reached, allows prediction. Ultimately, the laws of the theory should help in controlling the phenomenon. Stinchcombe (1968, p. 26) advocated that social theory is

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primarily to create the capacity to invent explanation and only secondarily, at least at this stage of development in social science, to predict and control. He explicitly admonished against developing theories with prediction and control in mind.

Other social scientists (Broadbeck 1963; Meehan 1968; Schragg 1967) suggested since conceptualization requires precise definitions that nominal definitions should be used. A nominal definition is validated by reflecting upon the meanings of the constituent manifestations of a concept and not its empirical validation (meaning analysis as against empirical analysis). In the area of leisure this constitutes a great difficulty since the concept means different things to the different theorists engaged in research. Perhaps the fact that *leisure research draws from dramatically different fields of endeavor* is the core of the problem. We will elaborate on this point later.

Even if differences are patched up among leisure researchers, a few difficult tasks are ahead. Among these is *an agreement on the boundaries of the phenomenon of leisure.* Although phenomena vary as to their affiliation, rain being a physical phenomenon, reptiles a biological one, and caste a social phenomenon, they tend to fall into one of two categories: (1) phenomena that stand out (rain, reptile, sex) and (2) phenomena that have to be cut out (class, psyche, leisure). An agreement should be reached as to the boundaries of the leisure phenomenon and its relationship to adjacent phenomena, such as play and culture. Such a step is necessary before an agreement is reached on the variables affecting the phenomenon. These variables, and the relationships among them, would be used (1) to make salient some of the characteristics of the phenomena and, (2) to distinguish between the necessary and sufficient conditions for the phenomenon to occur.

A distinction between *necessary and sufficient conditions* must be drawn before an understanding of the leisure phenomenon may occur. If a variable or a relationship between two variables is held to be antecedent to the phenomenon, such is a necessary condition, (e.g., free time). On the other hand, if a variable is held to be theoretically antecedent to the phenomenon, we have a sufficient condition (e.g., discretionary income).

One must bear in mind that the mere listing of variables is insufficient to explain adequately the leisure phenomenon. The relationship among them should be discussed and exhausted. Yet it is rather difficult, if not impossible, to present these relationships in a perfect isomorph to the empirical situation. Although this may be taken as a serious inadequacy, discrepancies are inevitable and are expected at this stage of social science. To overcome this, Meehan (1968), suggested the *ceteris paribus* clause (*cp*) to deal with any discrepancy. A "theory" of leisure would have to include a large *cp* clause. A well-established theory has no *cp* clause which means that a goodness of fit between the system and the empirical reality exists.

In the developing area of social science a set of hypotheses, before validation, is sometimes called theory. This is of course improper, and unless certain criteria such as precision, reliability, closure and completeness are met, a set of hypotheses should not be called a theory. In the meantime, it is hoped that the "theory" of leisure is not going to be a mere set of hypotheses. Such a theory may fall on the second level of Stinchcombe's seven levels of generality (1968, pp. 48-50):

1. General idea about causality
2. General causal imageries in explaning a phenomenon
3. Broad distinction among classes of phenomena
4. Ideas about the cause of one broad class of phenomenon
5. Theories that one variable explains another variable
6. The empirical consequence of a theory, if true
7. A support or a refute of step six

LEISURE RESEARCH

If leisure researchers should agree on the nature of the phenomenon and its boundaries, is there any hope of developing a "theory" soon? The answer is, unfortunately, no. Perhaps Forscher (1963) explains why:

> . . . among the activities. . . of man (was) scientific research. . . the performers (scientists) were builders who constructed edifices called explanations. . . by assembling bricks called facts. The making of bricks was a difficult and expensive undertaking. . . (thus they made) only bricks of the shape and size necessary for the enterprise at hand. The builder was guided in this manufacture by a blueprint, called a theory. . . a misunderstanding spread. . . the brickmakers became obsessed with the making of bricks. . . the land was flooded with bricks. . . It became necessary to organize more and more storage places, called journals. . . It became difficult to find a suitable lot for construction of an edifice because the ground was covered with loose bricks (of different sizes and shapes) . . . .

To put it mildly, our lot, on which we could have built a leisure theory, is covered with loose bricks. We need to clear it and check our storage place as to what actually exists. Fortunately, our storage places are relatively new. We have two large storage places (the *Journal of Leisure Research* and the *Bulletin of Society and Leisure*) and a number of little ones.

Content analysis of the *Journal of Leisure Research* during its first three years (Van Doren & Heit 1973) revealed the following:

	Frequency	Percentage
Technique-Method-Theory	11	17.7
Social Change-Leisure	11	17.7
Behavior-Attitude	9	14.5
Economics	7	11.3

	Frequency	Percentage
User Resource Relationship	6	9.7
Review-Bibliography	5	8.2
Therapeutic	4	6.5
Perception	3	4.8
Occupational-Recreational Leaders	2	3.2
Site Interpretation	2	3.2
Tourism and Travel	2	3.2
	62	

For the purpose of this paper, content analysis of the other publication, *Society and Leisure,* was conducted for the first four volumes and revealed the following:

	Frequency	Percentage
Trends and Philosophy	30	21.8
Pedagogy (including adult education)	26	19.8
Youth	24	17.7
Environment	20	14.8
Methodology	12	8.8
Time Budget & Planning	10	7.5
Activities (sport, art, culture)	8	5.9
Comparative Studies	4	2.9
Biographies	1	.8
Biological Studies	1	.8
	136	

From these two content analyses, it is easy to surmise that the bricks are of different sizes and shapes. Gray (1973) tried to make sense out of leisure research and classified it into three categories:

1. *Recreation Studies:* These studies involve planning issues concerned with determining interest in certain activities, predicting the level of use of certain facilities, and planning accordingly. The methodology used here is usually survey research. Survey research is frowned upon since only a very small proportion of the variance could be explained (Burdge & Hendricks 1973). This may be due to the dynamic nature of leisure activity. Burdge and Hendricks suggested in-depth studies of a large aggregate of persons who share similar demographic and social characteristics.

2. *Budget Time Studies:* These studies focus on activities also, but in addition provide a more accurate means of getting the data. Luschen (1973) believes that more sophistication is needed in time-budget studies, not so much on the basis of advanced statistics, but on continuous validity and reliability checks.

This refers back to the question of concepts and conceptualization. Perhaps an emphasis on observational data may reduce the malaise of time-budget studies.

3. *Sociological Studies:* For decades sociologists have engaged in studies on the family, voluntary organizations and other informal networks without calling them leisure research. Accordingly, when Bull (1973b) asked the question, "What contribution have sociologists carrying out research into leisure behavior made to sociology as a whole?," his answer was: "Very little." He blamed the noncumulative aspect of leisure research. This brings us to the questions of bricks.

Bull (1973b) suggested four reasons for the noncumulative nature of leisure research:

1. There is a tendency to use typology which does little to bring together various leisure behaviors that have certain characteristics in common.
2. Leisure research has dealt with description rather than explanation or prediction.
3. A few sociologists have worked in the field for a sustained period of time.
4. There is a lack of available funds to carry out leisure research.

Burdge and Hendricks, who served as editor and book editor of the *Journal of Leisure Research*, suggested that five problems hinder the scientific investigation of leisure (1973):

1. *Survey research on leisure activity.* The weakness in this type of research is that the simple enumeration may not show the intensity or breadth of the activity, group influences which perpetuated or terminated the activity and the life style which may have brought about a change in leisure behavior. Studies over time may be helpful here.

2. *The group nature of leisure activity.* Leisure is group-based behavior and research must investigate the question of how leisure groups form, what is their significance and how groups influence individual leisure patterns. A major methodological breakthrough will no doubt be needed to study groups in leisure settings.

3. *Problems with the structural variables.* It is suggested that survey information is divided into the "doers" and "non-doers." Such structural variables are not used and it seems that those individuals who are not engaged in any type of "structured" leisure are not doing anything in the society.

4. *The study of time.* Research might begin by exploring how various groups and individuals perceive and use time. It is also suggested that the new combinations of free time should be explored further.

5. *Deviant leisure.* A good sociological analysis is needed of what different subgroups of the society view as acceptable leisure. Other than what the major leisure and recreational institutions of society have defined as good use of free time, "deviant" recreational acts should be analyzed.

We agree full heartedly with Burdge and Hendricks, although with some apprehension. It seems as though sociologists have missed the boat when it

comes to the advancement of their science. Perhaps in the words of one of their well-known colleagues lies the answer. Inkeles stated that sociology is dubbed "the painful elaboration of the obvious" (1964, p. 19). While he may not agree with this, there is a great deal of truth to it. No one would label economics or political science as being engaged in an elaboration of the obvious. It seems that sociologists in their insistence that their discipline is scientific have plunged into statistical elaboration which is not in fact needed. What is needed, in this writer's opinion, is more and more mapping. Statistical elaboration may be useful at a later date when more characteristics of our social and sociological behavior are collected (more of number 1 above).

Would this be possible in leisure research? With the dominance of sociologists over the two main publications, it is rather doubtful. For, despite Bull's advocation that there is a lack of sociologists interested in leisure research, they dominate the scene as follows.

LEISURE RESEARCHERS

To determine the backgrounds of persons engaged in leisure research, other analyses were needed. Van Doren and Heit (1973) provided us with the affiliation of contributors to the *Journal of Leisure Research* in its first three years of publication:

Affiliation	Frequency	Percentage
Sociology & Anthropology	19	18.3
Recreation	15	14.4
U.S. Forest Department	13	12.5
Economics & Agriculture	7	6.7
Business	7	6.7
Research Institute (University)	7	6.7
Geography	6	5.8
Psychology	6	5.8
Field Professionals	6	5.8
Federal Agencies	4	3.8
Forestry School	3	2.9
Public Health School	3	2.9
Research Institute (Private)	3	2.9
Field Professionals (University)	2	1.9
Engineering School	1	1.0
Unclassified	2	1.9
	104	

In the *Bulletin of Society and Leisure*, the picture is quite different. The following summarizes the affiliation of the contributors to that publication in its first four years of publication:

Affiliation	Frequency	Percentage
Social Science/Sociology (University)	34	24.4
Adult Education Centers	20	14.8
Research and Planning Institutes	19	14.1
Unclassified	19	14.1
Academy of Science	13	9.5
Philosophy (University)	10	7.5
Government (Local and National)	5	3.7
Economics (University)	5	3.7
Recreation (University)	3	2.2
Agriculture (University)	3	2.2
Geography (University)	3	2.2
Medicine (University)	1	.8
Political Science (University)	1	.8
	136	

When the data from both analyses were combined, they revealed that most leisure researchers are affiliated with sociology and social science in general (22.9%), followed by research and planning personnel (12.9%), adult educators (8.3%) and recrealogists (7.6%). Others are foresters (6.6%) and economists and agriculturists (6.2%). There is also a high percentage of unclassified researchers (8.9%). These varied backgrounds may have contributed to the lack of consensus on the nature of leisure. One doubts that any area of social science is converged upon by scholars with such varied backgrounds.

The most promising aspect of leisure studies is their universality. The *Bulletin of Society and Leisure*, which is supported in part by UNESCO, reflects the international flavor concerning leisure. The *Bulletin* is published in Prague and includes the writings of scholars from some 22 countries. Following are the countries and the frequency and percentage of published material from these countries:

Country	Frequency	Percentage
Czechoslovakia	19	13.9
France	14	9.6
Poland	11	8.3
United States	11	8.3
Yugoslavia	11	8.3

	Frequency	Percentage
Britain	9	6.7
USSR	8	6.0
Sweden	6	4.1
Hungary	5	3.7
Belgium	5	3.7
East Germany	5	3.7
Switzerland	5	3.7
Canada	3	2.4
Finland	3	2.4
Romania	3	2.4
West Germany	3	2.4
Italy	3	2.4
Netherlands	3	2.4
Spain	3	2.4
Bulgaria	2	1.6
Austria	1	.8
Norway	1	.8
	136	

The increased interest of the Czechs is apparently a result of having the *Bulletin* published in their capital, otherwise there seems to be an even distribution of interest across Europe in the subject of leisure. We must point out that the European concept of leisure varies rather drastically from the American view, particularly when both ideological blocks are compared. The inclusion of adult education in the *Bulletin* is but one example of these differences.

It is universality, rather than anything else, that gives promise to leisure and leisure research. We quoted Willer earlier as stating that explanation of a phenomenon requires a general statement of universal nature (1967, p. 26). Unfortunately, for a number of years American sociologists have had some negative attitudes toward cross-cultural and comparative studies, as reflected in their writings and teaching, including their contributions to leisure. This despite Durkheim's admonition that one cannot explain a social fact of any complexity except by following its complete development through all social species (1938). If leisure were a real social fact, it would have to be followed and studied at all levels of its development.

What should be done first is an agreement with Durkheim. Funds, scholars and, ironically, time would be needed next. *With a reasonable sense of direction,*

cross-cultural cooperation and patience, a "theory" of leisure may eventually evolve. The following may serve as *modus operandi:*

1. A national group should be formed representing the National Recreation and Park Association and the National Leisure and Recreation Association of AAHPER.

2. This group should seek to cooperate with the European Center for the Study of Leisure in Prague.

3. Funds should be sought, not from the federal government, but from a national foundation that may give leisure research some permanency.

Until then all these departments of leisure studies would have to put up with fragmented approaches to varied human activities with the hope that some sense may come out of them.

It is my intuitive conviction that leisure research may provide some badly needed answers in social psychology and sociology.

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APPENDIX

GUIDE TO INFORMATION RESOURCES PROGRAMING
FOR PERSONS WITH HANDICAPPING CONDITIONS
THROUGH PHYSICAL EDUCATION,
RECREATION, AND RELATED DISCIPLINES

Information and Research Utilization Center
in Physical Education and Recreation for the Handicapped

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GENERAL INFORMATION

Gone are the days when one could find everything he needed/wanted to know about a subject in one book or even in one place. We are in an information explosion where manual search and review of all existing knowledge in an area of concern is an overwhelming or impossible task for the researcher. This wealth of information is surpassed only by its need. Yet, due to the magnitude of materials to be searched, much information is not readily accessible. Fortunately for the student, educator, practitioner, parent, volunteer and researcher, there are agencies and organizations which retrieve, catalogue, and disseminate information. This *Guide* has been developed as an aid to identify and use information resources relevant to recreation, physical education and related areas for impaired, disabled and handicapped persons.

Resources listed in this *Guide* are of two types: *information systems* and *compiled sources*. Compiled sources tend to be relatively specific in area delineation; systems may be either specific or broad in both area of concern and variety of data forms in the information base. In addition to collecting information, both types of resources may provide for abstracting and/or indexing of these materials; the information system generally provides an extension of services such as interpretation and evaluation of materials collected, manual or machine search of the system upon request, and/or reproduction of specific resources requested. The information base of these resources may include all, a combination, or only one of the following: journal articles, unpublished research reports, doctoral dissertations, masters theses, scholarly books out of print, government documents, project reports, conference reports, curriculum guides, bibliographies, and other forms of practical and/or theoretical data.

To make efficient use of information systems, the user should become familiar with the procedure and tools of systems he feels meet his information needs. Many systems produce a periodic index and/or abstract journal which provides the user with direct access to the system's information base. Some systems produce a thesaurus and/or subject index to aid in identifying descriptors that apply to the information need of the user; this must be consulted either in conjunction with the system's abstract journal or periodic index, or used alone in requesting a demand search. Demand searches, where information is either manually or machine retrieved to meet the user's specifications, are provided by some systems as the only access to the information base and by other systems as a tool to be used only after the user's information needs are not met by consulting the system's abstract journal or periodic index. The output from such a request might be a list of citations, an annotated bibliography, or a literature packet containing reprints of journal articles, abstracts and/or newsletters.

Abstract journals, periodic indexes, thesauri and subject indexes of most information systems, in addition to being available for purchase, can be found at university, medical, public, and special libraries. Access to materials cited in indexes and bibliographies can be found through direct request to the author, through libraries and on inter-library loan, or through purchase directly from the system in the form of microfilm, microfiche, xerographic copy (readable enlargement of microfilm), and/or hard copy. Specifics as to scope of concern, data base, tools, procedure for use, search results, and available reproduction of materials are listed for each resource.

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Bibliography of Theses and Dissertations in Recreation, Parks, Camping and Outdoor Education
Completed Research in Health, Physical Education, and Recreation
Encyclopedia of Sport Sciences and Medicine
Mental Retardation Abstracts

COMPUTER BASED RESOURCE UNITS (CBRU)

Address

Computer Assisted Planning
Communications Center
Professional Studies Research
and Development Complex
State University College at Buffalo
1300 Elmwood Avenue
Buffalo, NY 14222

Telephone (716) 862-5433

Purpose

Devised as a computerized information source of classroom instructional materials such as Resource Units and Skill Development Programs to retrieve specific activities according to needs and characteristics of individual children.

Characteristics

Classroom teacher selects up to five specific objectives for the group and two per individual child for each CBRU requested.

Activities are retrieved according to each child's needs, interests, developmental tasks, sex, reading level, mental and chronological ages, physical handicaps and learning environment.

Resource Units include such titles as *Alcohol, Career Education, Dental Health: Health Status, Disease Prevention and Control, Drugs: Mood Modification, Ecology and Epidemiology, Environmental and Public Health, First Aid and Survival, Nutrition, Safety Education, Sensory Perception, Tobacco* and *World Health.*

Skill development Programs include such units as *Movigenics, Physical Conditioning* and *Visual-Motor Development.*

Use

A complete list of all available CBRUs, objectives for each unit upon which a teacher bases his request, and Request Forms are available from Computer Assisted Planning. Cost options for CBRUs include:

Option I: Per request charge — allows access to one CBRU for one class (average 30 students). The cost per request ranges from $5 to $10 depending upon number of requests from a contractee per contract period. (Over 1,000 requests, $5 each; 801-1,000 requests, $6 each; 601-800 requests, $7 each; 401-600 requests, $8 each; 201-400 requests, $9 each; 1-200 requests, $10 each. These prices are reduced by 10% if the contractee does the entering; by 20% if he does the printing.)

Option II: Per student charge — allows access to all CBRUs at a fixed cost per student according to the number participating in the program from a given contract area (Region, School District, or identified population within the School District) in a contract period; that is, the teacher may request more than one guide for a class at no additional charge. The cost per student for this option ranges from $1.25 to $.35 depending upon number of students. To use this option, there must be at least 1,000 students using the service in a contract area. The cost is reduced by 25% if the contractee does the entering; by 25% if he does the printing.

COUNCIL FOR EXCEPTIONAL CHILDREN INFORMATION CENTER (CEC)

Address

CEC Information Center
The Council for Exceptional Children
Suite 900
1411 South Jefferson Davis Highway
Arlington, VA 22202

Telephone (703) 521-8820

Purpose

Established by the U.S. Office of Education, Department of Health, Education, and Welfare, to serve as a comprehensive information center on exceptional children, including the Clearinghouse on Exceptional Children in the Educational Resources Information Center (ERIC) program, and the national center in the Special Education Instructional Materials Centers/Regional Media Center (IMC/RMC) Network.

Characteristics

Exceptional Child Education Abstracts (ECEA) — quarterly publication serves as primary means of dissemination for CEC Information Center. It contains abstracts and summaries of research reports, journal articles, curriculum guides, teacher manuals, administrative surveys and guidelines, professional texts, literature for parents and other printed documents relevant to educating exceptional children. Abstracts of ERIC documents on the handicapped and gifted are also included. Each issue provides cumulative author and subject indexes. (Available from Exceptional Child Education Abstracts, CEC Information Center; institutional subscriptions — $50 per year; personal use subscriptions — $35 per year.)

CEC contributes document abstracts to *Research in Education (RIE)* and indexed journal articles to *Current Index to Journals in Education (CIJE)*. Additional information

concerning these journals can be found under Educational Resources Information Center.

Exceptional Children Bibliography Series — special topic bibliographies are prepared on basis of wide interest. One such selective bibliography available is "Physical Education and Recreation." A list of bibliographies, as well as specific bibliographies, are available at no cost from CEC Information Center.

Special Use

Request information by writing or telephoning the center. Compose a paragraph describing type of information desired (i.e., document files, journal files, a specific year); use *ERIC Thesaurus of Descriptors* and/or the CEC Thesaurus for Exceptional Child Education. Choose and arrange descriptors in hierarchy showing strong terms, less important terms, and related terms; close with another paragraph containing any additional information that may be of help such as why the information is needed or how it will be used. Replies are usually in the form of a literature packet containing reprints of CEC journal articles, brochures, appropriate bibliographies, document abstracts, and/or newsletters.

EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Address

National Institute of Education
Dissemination Task Force
Code 401
Washington, DC 20202

Telephone (202) 755-7666

Purpose

Designed and developed by the U.S. Office of Education and operated by the National Institute of Education, Department of Health, Education and Welfare, to keep educators and social scientists abreast of significant findings from current educational research and developmental activities.

Characteristics

Research in Education (RIE) — monthly abstract journal includes abstracts of recently completed research projects, descriptions of outstanding programs, and summaries of other documents of educational significance. (Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; $38.00 per year; $3.25 single copy.)

Research in Education Annual Index — cumulative author and subject indexes. (Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; 1972, $10.50; 1971, $7.00; 1970, $6.00; 1969, $6.25; 1968, $8.25; 1967 (Projects), $1.50; 1967 (Reports), $3.25.)

Thesaurus of ERIC Descriptors — collection of technically meaningful terms by which input to the ERIC system is indexed. This thesaurus allows searcher to request information in terms that permit input and output to be mutually precise; it should always be used when performing subject searches of *RIE*. (Available from Macmillan Information, A Division of Macmillan Publishing Co., Inc., 866 Third Ave., New York, NY 10022 at $8.95.)

Current Index to Journals in Education (CIJE) — monthly index cataloging and indexing periodicals for more than 500 major educational publications. (Available from Macmillan Information, A Division of Macmillan Publishing Co., Inc., 866 Third Ave., New York, NY 10022; $44.00 a year; $4.00 per single copy.)

Special Products and Services — magnetic tape copies of some ERIC files and other special use collections and indexes. (Available from ERIC Processing and Reference Facility, 4833 Rugby Ave., Suite 303, Bethesda, MD 20014.)

ERIC Document Reproduction Service (EDRS) — most documents announced in *RIE* are available through EDRS in microfiche (MF) or paper copy (HC). Cost for reproducing documents cited after May 1971 in either form appears in *RIE*. Documents cited prior to this date may be ordered at $.65 per title for MF and $3.29 for each 100-page increment for orders of HC. Orders should include accession (ED) number, type of reproduction (HC or MF), and number of copies; payments must accompany orders under $10.00. (Available from ERIC Document Reproduction Service, P.O. Drawer O, Bethesda, MD 20014)

ERIC Collections — in addition to direct purchase of documents from EDRS and location of articles in sources mentioned in the introduction of this guide, access to desired materials may be gained through an ERIC collection. Complete microfiche collections are maintained by many universities and college libraries, schools, supplementary educational centers, state education agencies, and other education-related institutions. For help in identifying sources of these collections, consult *Directory of Educational Information Resources*, 1970 (available through Macmillan Information, A Division of Macmillan Publishing Co., Inc., 866 Third Ave., New York, NY 10022 at $3.50); or *The Directory of ERIC Microfiche Standing Order Customers* (arranged by geographic location), February 1973 (available at no charge from ERIC Processing and Reference Facility, 4833 Rugby Ave., Suite 303, Bethesda, MD 20014.)

Clearinghouses — The ERIC System consists of 18 clearinghouses, each focusing on a particular field of education. Information not indexed in *RIE* and not reproduced by EDRS may be requested from individual clearinghouses covering the area of special interest.

ADULT EDUCATION
Syracuse University
107 Roney Lane
Syracuse, NY 13210

COUNSELING AND PERSONNEL SERVICES
University of Michigan
School of Education Building, Room 2108
E. University & S. University Sts.
Ann Arbor, MI 48104

DISADVANTAGED
Teachers College
Columbia University
1258 Amsterdam Ave., Box 40
New York, NY 10027

EARLY CHILDHOOD EDUCATION
University of Illinois
805 W. Pennsylvania Ave.
Urbana, IL 61801

EDUCATIONAL MANAGEMENT
University of Oregon
Eugene, OR 97403

EDUCATIONAL MEDIA & TECHNOLOGY
Stanford University
School of Education
Stanford, CA 94302

EXCEPTIONAL CHILDREN
The Council for Exceptional Children
Jefferson Plaza No. 1, Suite 900
1411 S. Jefferson Davis Highway
Arlington, VA 22202

HIGHER EDUCATION
George Washington University
One Dupont Circle, N.W., Suite 630
Washington, DC 20036

JUNIOR COLLEGES
University of California at Los Angeles
Powell Library, Room 96
405 Hilgard Ave.
Los Angeles, CA 90024

LANGUAGE AND LINGUISTICS
Modern Language Association of America
62 Fifth Ave.
New York, NY 10011

LIBRARY AND INFORMATION SCIENCES
American Society for Information Science
1140 Connecticut Ave., N.W.
Suite 804
Washington, DC 20036

READING AND COMMUNICATION SKILLS
National Council of Teachers of English
1111 Kenyon Road
Urbana, IL 61801

RURAL EDUCATION AND SMALL SCHOOLS
New Mexico State University
Box 3 AP
Las Cruces, NM 88003

SCIENCE, MATHEMATICS, AND
ENVIRONMENTAL EDUCATION
Ohio State University
1460 W. Lane Ave.
Columbus, OH 43221

SOCIAL STUDIES/SOCIAL SCIENCE EDUCATION
University of Colorado
855 Broadway
Boulder, CO 80302

TEACHER EDUCATION
American Association of Colleges
for Teacher Education
One Dupont Circle, N.W.
Suite 616
Washington, DC 20036

TESTS, MEASUREMENT, AND EVALUATION
Educational Testing Service
Princeton, NJ 08540

VOCATIONAL AND TECHNICAL EDUCATION
Ohio State University
1960 Kenny Road
Columbus, OH 43210

Special Use

Off-line computer search of the ERIC system is provided by the Information Retrieval Department of Lockheed Research Laboratories as Part of its ERIC/DIALOG system. Searches of specific subjects can be obtained once or on a quarterly standing order basis. Charge for this service is assessed in two parts: $20 per 10 descriptors obtained from ERIC Thesaurus; $5 per 50 citations printed out (abstracts provided

when available). There is a minimum charge of $25; there is no charge for printing a list of accession numbers.

Instruction booklets and worksheets for requesting desired searches are available from Lockheed Information Sciences, 405 Lexington Ave., Suite 4210, New York, NY 10017, telephone (212) 697-7171; or Lockheed Information Sciences, Dept. 15-54, 3251 Hanover St., Palo Alto, CA 94304, telephone (415) 493-4411, ext. 45635.

On-line, daily computer access to the ERIC data base is available through the System Development Corporation (SDC) as the SDC/ERIC Search Service. The system consists of a large-scale, time-shared computer in California containing ERIC citations dating back to 1966, and a multiplexer unit in Washington, D.C. Search is made through whichever SDC/ERIC Service location is closer; various types of data terminals are compatible to this system (one presently in use in another capacity may be used on a time-shared basis). Cost of the SDC/ERIC search service varies depending upon terminal time required, communication distance and type of terminal utilized. After the one-time startup charge and small monthly file maintenance fees, the monthly rates for this service at a minimum use charge of 10 hours per month are: $38/hour through SDC's California number or $42/hour through SDC's Washington number. For four full hours of service each day, a user or group of users may make use of the special rates of $2,000/month — California or $2,500/month — Washington. Search requests may be made according to any or all of the following categories: accession number, clearinghouse code, author, title, publication date, descriptors, identifiers, institution or source of origin, sponsoring agency, issue. Detailed information concerning this special use system is available from System Development Corporation, SDC/ERIC Search Service, Room 3113, 2500 Colorado Ave., Santa Monica, CA 90406.

MEDICAL LITERATURE ANALYSIS RETRIEVAL SYSTEM (MEDLARS)

Address
MEDLARS
National Library of Medicine
8600 Rockville Pike
Bethesda, MD 20014

Telephone (301) 496-6193

Purpose

Provides access to biomedical literature in the National Library of Medicine (NLM) for clinicians, researchers and other health professionals; demand searches may be requested by anyone whose work requires access to biomedical information.

Characteristics

Make searches through:

Index Medicus — monthly bibliographic listings of references to current articles in approximately 2,300 worldwide biomedical journals. Each issue contains subject and author sections and a *Bibliography of Medical Reviews*. (Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; $63 per year; $5 single issue.)

NLM Current Catalog — bibliographic listings for citations to publications cataloged by NLM. (Available through U.S. Printing Office; monthly, quarterly, or annual cumulations; 12 issues $7.50, single issue $.65; 4 three-month cumulations $13; single issue $3.25; annual cumulation $16.25.)

Recurring bibliographies — lists citations to journal articles of wide interest in specialized biomedical field. Available through non-profit professional organizations and government agencies cooperating with NLM. A list of these sources may be obtained in *Guide to MEDLARS Service* (available without charge from the Office of Public Information, NLM).

NLM Literature Search Series — previously prepared bibliographies selected on basis of interest to a wide audience. (Current list of bibliographies and individual bibliographies available without charge from Literature Search Program, Reference Section, NLM.)

Special Use

Request demand searches to answer specific information needs *not* met by previously cited bibliographies. Files date back to mid 1963; for articles prior to this, consult earlier volumes of *Cumulated Index Medicus* and *Current List of Medical Literature;* routine searches are limited to the most recent two and one-half to three and one-half years. Submit requests on MEDLARS search request form (PHS-4667), obtai[illegible] through local medical libraries, nearest MEDLARS center (listed in *Guide to MEDLARS Service)* and NLM. Send requests to nearest Regional Medical Library or MEDLARS center (see *Guide to MEDLARS Service*); a search is generally completed in two to three weeks. It is advantageous to use *Medical Subject Heading* (MESH) in choosing descriptors (available annually in Part 2 of each January issue of *Index Medicus*). There is no charge for this service; users are requested to complete an appraisal of the bibliography received.

Articles cited in previous bibliographies are obtainable through:

Reprints from author or publisher

Medical libraries

— local college/university medical centers
— medical schools
— health centers
— hospitals/clinics
— state or county medical societies
— interlibrary loan

Special libraries or libraries of national associations in various fields of medicine.

Regional Medical Library when unavailable elsewhere on inter-library loan; the request is forwarded to NLM when necessary.

MICROFORM PUBLICATIONS

Address

Microform Publications
School of Health, Physical Education and Recreation
University of Oregon
Eugene, OR 97403

Telephone (503) 686-4116

Purpose

Serves fields of health, physical education and recreation as authorized by the National Microcard Committee, a joint committee appointed by major American library associations. This non-profit service provides microform reproduction of materials with major emphasis on unpublished research materials (particularly doctoral dissertations and masters theses), early professional and scientific journals and scholarly books now out of print.

Characteristics

All microform publications issued are catalogued and periodically indexed in *Health, Physical Education, and Recreation Microform Bulletin*, which is sent to most college and university libraries. As of Volume 3 of the *Bulletin*, October 1972, all publications are in form of microfiche; as the supply of mircocards is depleted for titles indexed in Volumes 1 and 2 of the *Bulletin*, these will be converted to microfiche.

Use

Send orders for microcard and microfiche publications to *Microform Publications*. Include authors' names and microform publication numbers in the same sequence as they appear in the *Bulletin*. Publications are available to individuals as well as institutions on three different order plans:

Standing Order Plan. Receive all new Microform publications automatically at the time they are announced semi-annually; bills are for cost, less 20% per title if payment is made within 60 days of initial billing. This discount is also applicable to orders of previously announced titles.

New Title Plan. Order all titles announced at a given time. The same discount as above is allowed.

Individual Plan. Make a selection of individual Microform titles; costs are based on prices listed in the *Bulletin* without discount.

NATIONAL CLEARINGHOUSE FOR MENTAL HEALTH INFORMATION (NCMHI)

Address

National Clearing House for Mental Health Information
National Institute of Mental Health
5600 Fishers Lane
Rockville, MD 20852

Telephone

Public Inquiries Section (301) 443-4513
Technical Information Section (301) 443-4517

Purpose

Established to identify mental health sources from all over the world, collect information, and process this information for dissemination to meet individualized needs of research scientists, professional practitioners, educators, administrators, students and concerned citizens.

Characteristics

Mental Health Digest — monthly periodical includes digests of published research reports, review articles, program descriptions and theoretical perspectives; also provides news items, descriptions of new publications, and guides to other sources of mental health information. (Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; $3.50 per year in U.S.A., Canada, and Mexico; $4.50 in other countries; single copy $.30.)

Psycholpharmacology Abstracts — monthly listing of citations and abstracts of recent research in psychopharmacology; includes technical reports and published literature from all over the world; in addition to monthly indexes, provides a cumulative annual index of authors and detailed subject index. (Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; $13 per year in U.S.A , Canada, and Mexico; $16.25 in other countries; single copy $1.)

Crime and Delinquency Abstracts — bimonthly listing of citations and abstracts of research reports, program descriptions and innovative techniques in the field of crime and delinquency; provides cumulative annual index of authors and detailed subject

index in addition to index for each issue. (Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; $4.50 per year in U.S.A., Canada, and Mexico; $5.75 in other countries; single copies $.65.)

Schizophrenia Bulletin — experimental publication featuring original articles, news items and abstracts of current literature on schizophrenia. (Available from *Schizophrenia* Bulletin, National Clearinghouse of Mental Health Information; free of charge.)

Mental Health Directory — biennial listing of psychiatric treatment facilities in the U.S.A. (Available from Public Inquiries Section, National Clearninghouse for Mental Health Information; single copy free of charge.)

Selected Sources of Inexpensive Mental Health Materials — listing of organizations that offer informational materials for mental health workers, teachers and community leaders. (Available from Public Inquiries Section, National Clearinghouse for Mental Health Information; single copy free of charge.)

Mental Health Information for the General Public — collections of publications, articles and reference lists on many aspects of mental health are available. Inquiries about mental health services, treatment, training and other general areas should be made to the Public Inquiries Section, National Clearinghouse for Mental Health Information. Among topics included in the Public Inquiries subject files are: aging, alcoholism, autism, care and treatment of mentally ill, child mental health, death and grief, genetics, group therapy, juvenile delinquency, mental hospitals, poverty and mental health, rehabilitation for the mentally restored, religion and mental health, sleep and dreams, student unrest, suicide prevention. Specific bibliographies available include: Abstracts of the Standard Edition of Freud; Suicide and Suicide Prevention; Research in Individual Psychotherapy; International Family Planning; Coping and Adaptation; Volunteer Services in Mental Health; Computer Applications in Psychotherapy; Social Aspects of Alienation; Early Childhood Psychosis; Epidemiology of Mental Disorders; Urban Crisis; Behavior Modification in Child and School Mental Health; Psychological and Social Aspects of Human Tissue Transplantation; Human Intelligence; The Comprehensive Community Mental Health Center. (Available from Public Inquiries Section, National Clearinghouse for Mental Health Information; single copies free of charge.)

Special Use

Requests for free computer searches of files may be made by mental health professionals and advanced students. Describe information interest/need as precisely (avoid very broad terms) as possible in a letter or telephone call to the National Clearinghouse for Mental Health Information Technical Information Section. The response may include one or a combination of the following: computer printout of literature citations and abstracts, publications, and/or referrals to organizations or individuals that can give more complete information pertinent to the request.

PSYCHOLOGICAL ABSTRACTS SEARCH AND RETRIEVAL (PASAR)

Address

Psychological Abstracts Information Service
American Psychological Association
1200 Seventeenth Street, N.W.
Washington, DC 20036

Telephone (202) 833-7600

Purpose

Provides search of all records published in *Psychological Abstracts* starting in 1967; references supplied in overlapping subject areas to satisfy specific behavioral and social science information needs.

Characteristics

Psychological Abstracts — monthly, noncritical abstracts of the world's literature in psychology and related subjects; two volumes per year. (Available from the American Psychological Association, Subscription Department; $190 per year; single issue $14.)

Psychological Abstracts Semiannual Index — index per volume of *Psychological Abstracts;* contains a listing of the index terms applied to represent the subject content of each abstract contained in the volume. (Available from American Psychological Association, Subscription Department; $20 per index.)

Special Use

Request for a search should be submitted on a PASAR Request Form (available from Psychological Abstracts Information Service, American Psychological Association). *Psychological Abstracts Semiannual Index* should be consulted for search terms, but the searcher is free to use other key words. All or any combination of 19 record segments (including, e.g., author, author affiliation, title, subject index codes, source document) may be selected. References can be sorted and arranged according to author or by year. A computer printout listing citations and abstracts is returned in about 2-3 weeks. Charges are based on a $15 processing fee for each request, plus $2.25 per minute computer time. There is a maximum charge of $95, unless the search topic is unusually broad.

SCIENCE INFORMATION EXCHANGE (SIE)

Address

Science Information Exchange
209 Madison National Bank Building
1730 M Street, N.W.
Washington, DC 20036

Telephone (202) 381-5511

Purpose

Operated by Smithsonian Institute as a registry for research tasks and projects at the publication stage so as to avoid unwarranted duplication of research efforts. Coverage includes all fields of basic and applied research in life, social, physical and engineering sciences.

Characteristics

Maintains brief record describing research actually in progress or being planned including the following information: supporting agency, title of project, principal investigators, starting and completion dates and technical description of intended research. Reports on completed research are *not* collected.

Use

Request search of files according to needs with output sorted and categorized in terms of collections of records, computer lists of titles and authors or tables of data. It is also possible to have SIE assemble, index and edit manuscripts for catalogs of broad subject field. Cost of retrieval ranges from $3 for name searches, $30 and $60 for subject searches, to negotiated fees for broad subject fields, compilations and catalogs. Submit requests directly to SIE.

SELECT-ED
PRESCRIPTIVE MATERIALS RETRIEVAL SYSTEM (PMRS)

Address

Select-Ed, Inc.
P.O. Box 323
117 North Chester
Olathe, KS 66061

Telephone (913) 782-3366

Purpose

Classification and indexing system available for purchase which allows educators to select materials that correspond directly to each child's learning needs.

Characteristics

Contents of current edition:
— thesaurus (or several)
— over 400 descriptor cards
— light box for *displaying* a search
— title listing of materials
— numerical listing of materials
— publisher listing of materials
— file of Descriptive Analysis Sheets which analyze and describe each unit or series of instructional materials as to their contents, uses and efficiency
— *Educational materials cited are not part of the system.*

Basic skill areas covered include: English and Composition, Handwriting, High Interest-Low Vocabulary Materials, Linguistics, Literature, Mathematics, Miscellaneous terms (i.e., health, safety, grooming and personal appearance, social skills), Perceptual-Motor Development, Phonics, Readiness, Reading Skills, Speech and Language Development, Spelling

Descriptive terms areas:
— Specific Content: skills, concepts, content of materials
— Format and Special Characteristics: large print, textbook, charts
— Grade Level
— Mental Age
— Reading Level
— Input-Output; how the presentation of material is made, and how the pupil is to respond
— Process; to describe the process by which the student learns
— Basic Skill Area

Purchase:
— Available from Select-Ed, Inc.
— Basic PMR System, $1,950.
— Annual Updating, approximately $500

PMR Systems are presently incorporated in several Special Education Instructional Materials Centers; check with Select-Ed or Regional IMC for location of the nearest center housing a PMR System.

SPECIAL EDUCATION INFORMATION CENTER (SEIC)

Address

CLOSER LOOK
Box 1492
Washington, DC 20013

Purpose

Established through the Bureau of Education for the Handicapped (BEH), U.S. Office of Education, Department of Health, Education and Welfare as an information service to help parents locate services for their handicapped child.

Characteristics

Dissemination of listings of facilities servicing the handicapped by specific handicapping conditions and by state; information concerning special education for persons with specified handicapping conditions is included.

CLOSER LOOK — Bi-monthly newsletter contains current information pertaining to the handicapped; includes recent legislative decisions, efforts made by parent organizations and current book reviews in the field.

Reprints — alternate monthly mailings made of reprints of journal articles and reports relevant to the field.

Dissemination of listings of parent organizations by handicapping condition in the New England States (proposed listings to be completed for all states by 1974).

How to Organize an Effective Parent Group and Move Bureaucracies — free handbook provides technical assistance to parent groups.

Use

Requests for listings of facilities and parent groups should be made to *CLOSER LOOK*. Names of requesters are added to the data bank to receive alternate monthly mailings of reprints and *CLOSER LOOK*.

SPECIAL EDUCATION INSTRUCTIONAL MATERIALS CENTERS REGIONAL MEDIA CENTERS NETWORK (SEIMC/RMC)

Purpose

Established by the Bureau of Education for the Handicapped (BEH) of the Department of Health, Education, and Welfare, to provide information about instructional materials and methods for people working directly with exceptional children.

Characteristics

National Network
- Coordinated with the Council for Exceptional Children — Educational Resource Information Center (CEC-ERIC)
- 16 Regional Instructional Materials Centers
- 4 Regional Media Centers
- Numerous state and locally funded associate, satellite or affiliate centers within each region

Services and procedures for use vary from one Regional Center to another; services may include:
- acquisition, storage, and loan of professional and instructional materials in special education
- consultation
- evaluation and development of materials
- training in use of instructional materials
- regular dissemination of information concerning new materials, professional information, or upcoming meetings

Use

Contact appropriate regional center to determine procedure for use, services available, and nearest associate center.

Instructional Materials Reference Center
American Printing House for the Blind
1839 Frankfort Ave.
Louisville, KY 40206
Tel. (502) 895-2405
Region Served: National

New England Materials Instruction Center
Boston University
704 Commonwealth Ave.
Boston, MA 02215
Tel. (617) 353-3266
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East Lansing, MI 48823
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Albany, NY 12207
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Austin, TX 78712
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Los Angeles, CA 90015
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Region Served: Ariz., Calif., Nev.

THERAPEUTIC RECREATION INFORMATION CENTER (TRIC)

Address

Therapeutic Recreation Information Center
Department of Recreation and Leisure Studies
University of Waterloo
Ontario, Canada

Telephone (519) 885-1211, Ext. 3667

Purpose

Literature and document storage and retrieval system which indexes and abstracts published and unpublished articles, books, conferences proceedings, and other materials to aid educators, professionals, students, practitioners and others interested in therapeutic recreation service.

Characteristics

Files contain annotated listings of published information sources from 1965 to 1970 with planned quarterly updating in the following areas:

Therapeutic recreation from *Therapeutic Recreation Journal* and *Therapeutic Recreation Annual* both abstracted and indexed in their entirety

Physical education and recreation from *Journal of Health, Physical Education, Park and Recreation,* and *Journal of Leisure Research*

Related disciplines from *Rehabilitation Literature, Journal of Rehabilitation, Journal of Psychology, Sociological Abstracts, Research in Education,* and *Education Index*

Disability areas from *Exceptional Children, Geriatrics, New Outlook for the Blind,* and *Mental Retardation*

Program areas from *Camping Magazine* and *Journal of Music Therapy*

Specially generated bibliographies of all major publishing houses and university publication bureaus

Publications of rehabilitation associations such as National Easter Seal Society, American Foundation for the Blind, state associations, and special governmental agencies for the disabled.

Use

Send information requests to TRIC in care of Fred W. Martin, Director. Include a brief paragraph specifically indicating the problem or research area of interest; use two to five subject terms or phrases to specify content interest. Output can be restricted to a specific year, author, geographic location, and/or institution. At present there is no charge for this service; a brief evaluation of the rele ance of material retrieved is requested.

UNIVERSITY MICROFILMS

Address

University Microfilms
300 North Zeeb Road
Ann Arbor, MI 48106

Telephone (313) 761-4700

Purpose

Publishes doctoral dissertations on microfilm and compiles and indexes abstracts of both doctoral dissertations and masters theses.

Characteristics

Dissertation Abstract International — monthly cumulative index and abstracts of recently completed doctoral dissertations submitted to University Microfilms. Beginning with Volume XXX, No. 1, *Dissertation Abstracts International* contains a "Keyword Title Index" in which bibliographic entries are classified and arranged alphabetically by important keywords contained in titles. Dissertations are presented in two sections: A. humanities and social sciences; and B. physical sciences and engineering. (Available from University Microfilms Library Services, $100 per year; Section A or B, $60 per year.)

American Doctoral Dissertations — index of all doctoral dissertations accepted by institutions of higher learning in U.S. and Canada, regardless of whether they have been published by University Microfilms or not. (Available from University Microfilms Library Services at $15 per year.)

Master's Abstracts — quarterly index and abstracts of recently completed masters' theses chosen for publication by University Microfilms. (Available from Master's Abstracts, University Microfilms at $10 per year.)

Special Use

Direct Access To Reference Information, a Xerox service (DATRIX) is an information retrieval system based on key words derived from titles, author's selected subject headings and other descriptive data of each doctoral dissertation on microfilm at University Microfilms. Data base is divided into two classifications — Humanities/Social Sciences and Sciences. To obtain a bibliography pertinent to one's field of interest, key words must be identified. To aid the searcher, a *High Frequency Keyword List* is available but one is not limited only to words in this list. (*High Frequency Keyword Lists* and search order forms are available at libraries or from DATRIX, University Microfilms.) The basic fee for a DATRIX inquiry is $5 plus $10 per reference, over 10 references. Bibliographies are returned within a few working days and include

for each reference title of the dissertation, author's name and degree, university at which the dissertation was accepted, date of publication, and page and volume of *Dissertation Abstracts* where the dissertation is listed. Standard charges for any microfilmed dissertation or theses is $4; for xerographically reproduced copies (readable enlargement of microfilm, 5½ x 8½ inches) the charge is $10; shipping and handling charges are added plus any applicable taxes. (Available from University Microfilms, Dissertation Copies, P.O. Box 1764, Ann Arbor, MI 48106.)

BIBLIOGRAPHY OF THESES AND DISSERTATIONS IN RECREATION, PARKS, CAMPING AND OUTDOOR EDUCATION 1970

Address

National Recreation and Park Association (NRPA)
1601 North Kent Street
Arlington, VA 22209

Telephone (703) 252-0606

Purpose

Compilation of titles of theses and dissertations in the areas of recreation, parks, camping, and outdoor education.

Characteristics

Updates and integrates previous bibliographies: *Bibliography Related to Recreation Research*, compiled and published by Betty van der Smissen, 1962; *Research in Recreation, Part I*, compiled and published by the National Recreation Association; and the theses and dissertation section of the 1962 *Bibliography Related to Camping and Outdoor Education* and its 1965 supplement, both compiled and published by the American Camping Association.

- Alphabetical listing by author
- Cross-referenced topical index
- Index by institutions
- Partial annotations
- Available from NRPA ($7.50)

COMPLETED RESEARCH IN HEALTH, PHYSICAL EDUCATION, AND RECREATION

Address

AAHPER Publications—Sales
1201 Sixteenth Street, N.W.
Washington, DC 20036

Telephone (202) 833-5550

Purpose

Compilation of abstracts of masters theses, doctoral dissertations, and a bibliography of selected published research from periodicals in the fields of health, physical education, recreation and allied fields.

Characteristics

Published annually since 1958
Three parts:
— Part I. Index by alphabetical subject headings
— Part II. Bibliography of selected journal articles
— Part III. Abstracts of masters theses and doctoral dissertations in alphabetical order according to sponsoring institutions
Available from AAHPER Publications—Sales ($3 per year)

ENCYCLOPEDIA OF SPORT SCIENCES AND MEDICINE 1971

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Federation International de Medecine Sportive
International Olympic Committee
World Health Organization
International Council of Health, Physical Education, and Recreation
Research Committee of the International Council of Sports and Physical Education of the United Nations Educational, Scientific, and Cultural Organization

Purpose

Resource for all professional personnel who work through the media of physical activity to summarize scientific literature throughout the world relative to sports medicine—i.e., any force, stress, or environmental factor that influences the human organism before, during or after participation in physical activity.

Characteristics

Areas — General Physical Activity; Sports, Games, and Exercise; Environment; Emotions and Intellect; Growth, Development, and Aging; Drugs; Prevention of Disease and Injury; Special Application of Physical Activity to the Handicapped Individual; Rehabilitation; and Safety and Protection.

Available from the Macmillan Company, New York ($39.95).

MENTAL RETARDATION ABSTRACTS

Address

Ms. Mary Herner
Project Director
Herner Information Service, Inc.
2100 M Street, N.W.
Washington, DC 20037
(202) 293-2608

Ms. Patricia Thoben
Project Officer
Division of Developmental Disabilities
Rehabilitation Service Administration
Washington, DC 20201
(202) 962-2335

Purpose

Compilation of research abstracts, summaries and annotated bibliographies in the field of mental retardation. It is published by the U.S. Department of Health, Education and Welfare to provide rapid access to information about new developments and research in the field.

Characteristics

- Quarterly Publication
- Available from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (Yearly subscription $4.50; single copies $1.25.)
- Reprints available by writing directly to author(s) of an article
- Copies of annotated bibliographies are *not* reprinted for distribution

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BIBLIOGRAPHY OF RESEARCH INVOLVING FEMALE SUBJECTS
A compilation of theses and dissertations in physical education, health and recreation involving female subjects. Studies are categorized as follows: motor learning, psychological aspects, physiological and biomechanical aspects, sport study, physical education for the handicapped, health, teaching method/curriculum/administration, and recreation/leisure. 1974.

COMPLETED RESEARCH IN HEALTH, PHYSICAL EDUCATION, AND RECREATION
Annual compilations of research published in over 100 periodicals and abstracts of master's and doctor's theses in these areas. Write for a list of volumes currently available.

DGWS (NAGWS) RESEARCH REPORTS
A series of research reports designed to provide the practitioner with scientific evidence on which to base decisions relating to programs of physical activity and athletics for girls and women. Write for a list of reports currently available.

RESEARCH IN OUTDOOR EDUCATION
Summaries of 117 doctoral studies in outdoor education completed during the past three decades. Each summary consists of a brief statement of the problem, the procedure followed, and a resume of results and conclusions. 1973.

RESEARCH METHODS IN HEALTH, PHYSICAL EDUCATION, AND RECREATION
An up-to-date, authoritative reference and basic textbook written by nationally known research specialists. Presented in clear, direct style and set in easy-to-read type, it deals with all phases of research — from selecting a problem to the final writing of the report. An invaluable tool for the experienced researcher and teacher of graduate courses, as well as the student working on his first project. It is indexed and has extensive bibliographies for each subject treated. Completely revised 3rd ed., 1973.

WHAT RESEARCH TELLS THE COACH ABOUT BASEBALL, DISTANCE RUNNING, FOOTBALL, SPRINTING, SWIMMING, TENNIS, AND WRESTLING
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